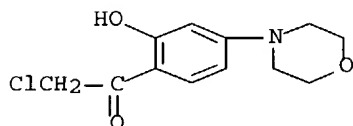
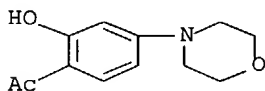


claim 41

L4 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2004:627189 CAPLUS Full-text
 TI Isoform-specific phosphoinositide 3-kinase inhibitors from an arylmorpholine scaffold
 AU Knight, Zachary A.; Chiang, Gary G.; Alaimo, Peter J.; Kenski, Denise M.; Ho, Caroline B.; Coan, Kristin; Abraham, Robert T.; Shokat, Kevan M.
 CS Program in Chemistry and Chemical Biology, University of California, San Francisco, CA, 94143, USA
 SO Bioorganic & Medicinal Chemistry (2004), 12(17), 4749-4759
 CODEN: BMECEP; ISSN: 0968-0896
 PB Elsevier Ltd.
 DT Journal
 LA English
 AB Phosphoinositide 3-kinases (PI3-Ks) are an ubiquitous class of signaling enzymes that regulate diverse cellular processes including growth, differentiation, and motility. Physiol. roles of PI3-Ks have traditionally been assigned using two pharmacol. inhibitors, LY294002 and wortmannin. Although these compds. are broadly specific for the PI3-K family, they show little selectivity among family members, and the development of isoform-specific inhibitors of these enzymes has been long anticipated. Herein, the preparation of two classes of arylmorpholine PI3-K inhibitors and the characterization of their specificity against a comprehensive panel of targets within the PI3-K family are reported. Multiplex inhibitors that potently inhibit distinct subsets of PI3-K isoforms, including the first selective inhibitor of p110 β /p110 δ (IC₅₀ p110 β = 0.13 μ M, p110 δ = 0.63 μ M), were identified. Trends that suggest certain PI3-K isoforms may be more sensitive to potent inhibition by arylmorpholines, thereby guiding future drug design based on this pharmacophore, were also identified.
 IT 404010-44-2P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (preparation AMA 48 and study of its activity as isoform-specific phosphoinositide 3-kinase inhibitor)
 RN 404010-44-2 CAPLUS
 CN Ethanone, 2-chloro-1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)

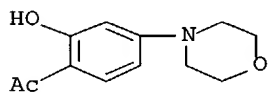


IT 404009-40-1P, IC 86621
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (preparation IC 86621 and study of its activity as isoform-specific phosphoinositide 3-kinase inhibitor)
 RN 404009-40-1 CAPLUS
 CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)

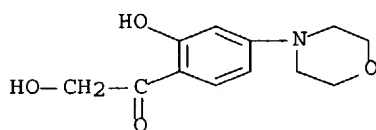


RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2004:7906 CAPLUS Full-text
 DN 140:368226
 TI DNA-dependent protein kinase inhibitors as drug candidates for the treatment of cancer
 AU Kashishian, Adam; Douangpanya, Heather; Clark, Darcey; Schlachter, Stephen T.; Eary, C. Todd; Schiro, Justin G.; Huang, Hongmei; Burgess, Larry E.; Kesicki, Edward A.; Halbrook, James
 CS ICOS Corporation, Bothell, WA, USA
 SO Molecular Cancer Therapeutics (2003), 2(12), 1257-1264
 CODEN: MCTOCF; ISSN: 1535-7163
 PB American Association for Cancer Research
 DT Journal
 LA English
 AB Cancer presents a difficult challenge for oncologists, as there are few therapies that specifically target disease cells. Existing treatment strategies rely heavily on phys. and chemical agents that nonspecifically affect DNA metabolism. To improve the effectiveness of these treatments, we have identified a new class of protein kinase inhibitor that targets a major DNA repair pathway. A representative of this class, 1-(2-hydroxy-4-morpholin-4-yl-phenyl)-ethanone, inhibits the DNA-dependent protein kinase (DNA-PK) and differs significantly from previously studied DNA-PK inhibitors both structurally and functionally. DNA-PK participates in the cellular response to and repair of chromosomal DNA double-strand breaks (DSBs). These new selective inhibitors recapitulate the phenotype of DNA-PK defective cell lines including those from SCID mice. These compds. directly inhibit the repair of DNA DSBs and consequently enhance the cytotoxicity of phys. and chemical agents that induce DSBs but not other DNA lesions. In contrast to previously studied DNA-PK inhibitors, these compds. appear benign, exhibiting no toxic effects in the absence of DSB-inducing treatments. Most importantly, 1-(2-hydroxy-4-morpholin-4-yl-phenyl)-ethanone synergistically enhances radiation-induced tumor control in a mouse-human xenograft assay. These studies validate DNA-PK as a cancer drug target and suggest a new approach for enhancing the effects of existing cancer therapies.
 IT 404009-40-1 404011-13-8
 RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (DNA-dependent protein kinase inhibitors as drug candidates for treatment of cancer in relation to RPA phosphorylation)
 RN 404009-40-1 CAPLUS
 CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)

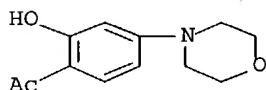


RN 404011-13-8 CAPLUS
 CN Ethanone, 2-hydroxy-1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD

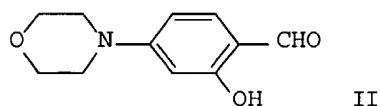
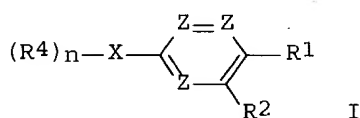
L4 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2003:830035 CAPLUS Full-text
 DN 140:317212
 TI Interactive Competition Between Homologous Recombination and
 Non-Homologous End Joining
 AU Allen, Chris; Halbrook, James; Nickoloff, Jac A.
 CS Department of Molecular Genetics and Microbiology, University of New
 Mexico School of Medicine, Albuquerque, NM, 87131, USA
 SO Molecular Cancer Research (2003), 1(12), 913-920
 CODEN: MCROC5; ISSN: 1541-7786
 PB American Association for Cancer Research
 DT Journal
 LA English
 AB DNA-dependent protein kinase (DNA-PK), composed of Ku70, Ku80, and the
 catalytic subunit (DNA-PKcs), is involved in double-strand break (DSB)
 repair by non-homologous end joining (NHEJ). DNA-PKcs defects confer
 ionizing radiation sensitivity and increase homologous recombination
 (HR). Increased HR is consistent with passive shunting of DSBs from NHEJ
 to HR. We therefore predicted that inhibiting the DNA-PKcs kinase would
 increase HR. A novel DNA-PKcs inhibitor (1-(2-hydroxy-4-morpholin-4-yl-
 phenyl)- ethanone; designated IC86621) increased ionizing radiation
 sensitivity but surprisingly decreased spontaneous and DSB-induced HR.
 Wortmannin also inhibits DNA-PKcs and reduces DSB-induced HR. IC86621
 did not affect HR product outcome, indicating that it affects HR
 initiation. Thus, HR is increased in the absence of DNA-PKcs, but
 decreased when DNA-PKcs is catalytically inactive, suggesting
 interactive competition between HR and NHEJ. The effects of IC86621 and
 wortmannin were proportional to the level of DNA-PKcs, consistent with
 inhibited DNA-PKcs acting in a dominant neg. manner. We propose that
 inhibition of DNA-PKcs blocks its autophosphorylation, prevents
 dissociation of DNA-PKcs from DNA ends, and thereby blocks both HR and
 NHEJ. By blocking the two major DSB repair pathways, DNA-PKcs
 inhibitors should radiosensitize at all cell-cycle stages and are
 therefore excellent candidates for augmenting cancer radiotherapy.
 IT 404009-40-1, IC 86621
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (interactive competition between homologous recombination and
 non-homologous end joining: DNA-PKcs inhibitors as radiosensitizers)
 RN 404009-40-1 CAPLUS
 CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



RE.CNT 73 THERE ARE 73 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2002:185097 CAPLUS Full-text
 DN 136:247591
 TI Preparation of arylmorpholines as inhibitors of DNA-dependent protein kinase and methods to potentiate cancer treatment
 IN Halbrook, James; Kesicki, Edward; Burgess, Laurence E.; Schlachter, Stephen T.; Eary, Charles T.; Schiro, Justin G.; Huang, Hongmei; Evans, Michael; Han, Yongxin
 PA Icos Corporation, USA
 SO PCT Int. Appl., 247 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002020500	A2	20020314	WO 2001-US26709	20010828
	WO 2002020500	A3	20030731		
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	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2001088432	A5	20020322	AU 2001-88432	20010828
	US 2002165218	A1	20021107	US 2001-941897	20010828
	EP 1351946	A2	20031015	EP 2001-968164	20010828
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRAI	US 2000-229899P	P	20000901		
	WO 2001-US26709	W	20010828		
OS	MARPAT 136:247591				
GI					



AB Comps. that inhibit DNA-dependent protein kinase, I [n = 0-4; X = (un)substituted 4-7 membered aliphatic ring containing 0-3 heteroatoms consisting of N, O and S (X = morpholinyl preferred); Z = independently N or CR₃; R₃ = independently H, halo, CHO, alkoxy, etc.; R₁ = H, (un)substituted alkyl, cycloalkyl, CO, NO₂, etc.; R₂ = H, (un)substituted alkyl, carbamoyl, alkoxy, sulfamyl, etc.; with provision when X = morpholinyl, R₂ and R₄ and R₃ = H at each occurrence, then R₁ is different from COMe, phenylalkene, and NO₂; and with the provision that when X = morpholinyl, R₄ = H and Z = N at each occurrence, then R₁ and R₂ when taken together is different from triazole], were prepared

and compns. of I with other antineoplastic agents are claimed for use in cancer treatment therapy. Thus, II was prepared in 23% yield via formylation of 3-(4-morpholinyl)phenol. II demonstrated an IC50 value of 400 nM in DNA-PK assay. Preliminary results of animal tumor model studies indicate II enhanced the tumorigenic effect of total body irradiation (using 100-500 rad γ -radiation, II delayed tumor growth 1.2 to 1.8-fold relative to animals receiving radiation only).

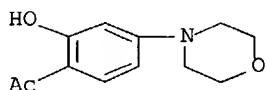
IT 404009-40-1P

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(target compound; preparation of arylmorpholines as inhibitors of DNA-dependent protein kinase for cancer treatment)

RN 404009-40-1 CAPLUS

CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



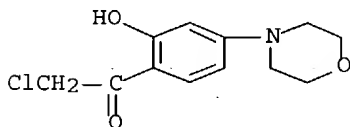
IT 404010-44-2P 404010-52-2P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(target compound; preparation of arylmorpholines as inhibitors of DNA-dependent protein kinase for cancer treatment)

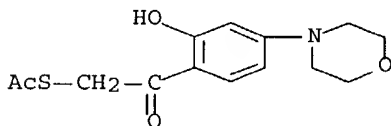
RN 404010-44-2 CAPLUS

CN Ethanone, 2-chloro-1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



RN 404010-52-2 CAPLUS

CN Ethanethioic acid, S-[2-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-oxoethyl] ester (9CI) (CA INDEX NAME)

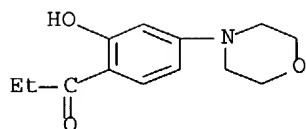


IT 404009-42-3P 404009-44-5P 404009-48-9P
404010-36-2P 404010-38-4P 404010-45-3P
404010-46-4P 404010-47-5P 404010-51-1P
404010-53-3P 404011-13-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (target compound; preparation of arylmorpholines as inhibitors of DNA-dependent protein kinase for cancer treatment)

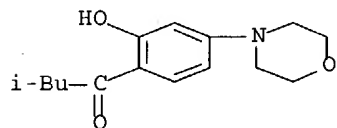
RN 404009-42-3 CAPLUS

CN 1-Propanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



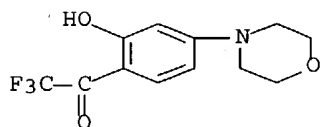
RN 404009-44-5 CAPLUS

CN 1-Butanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-3-methyl- (9CI) (CA INDEX NAME)



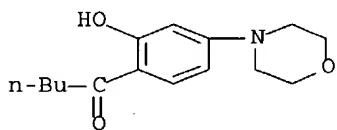
RN 404009-48-9 CAPLUS

CN Ethanone, 2,2,2-trifluoro-1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



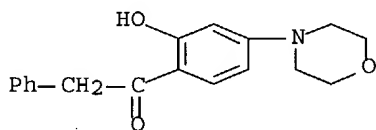
RN 404010-36-2 CAPLUS

CN 1-Pentanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



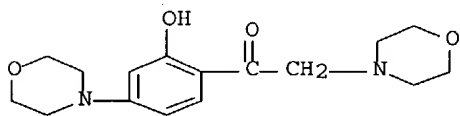
RN 404010-38-4 CAPLUS

CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-phenyl- (9CI) (CA INDEX NAME)



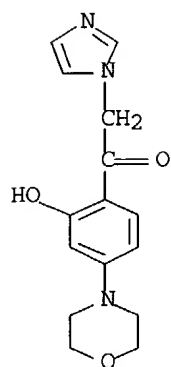
RN 404010-45-3 CAPLUS

CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-(4-morpholinyl)- (9CI) (CA INDEX NAME)



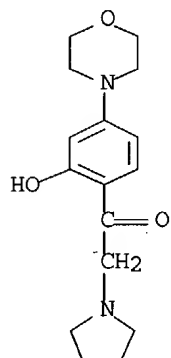
RN 404010-46-4 CAPLUS

CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-(1H-imidazol-1-yl)- (9CI) (CA INDEX NAME)



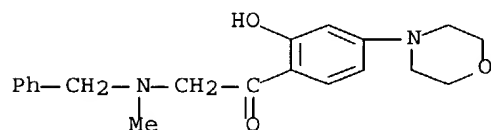
RN 404010-47-5 CAPLUS

CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-(1-pyrrolidinyl)-
(9CI) (CA INDEX NAME)



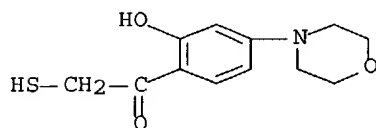
RN 404010-51-1 CAPLUS

CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-
[methyl(phenylmethyl)amino] - (9CI) (CA INDEX NAME)



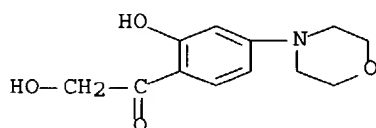
RN 404010-53-3 CAPLUS

CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-mercapto- (9CI) (CA
INDEX NAME)

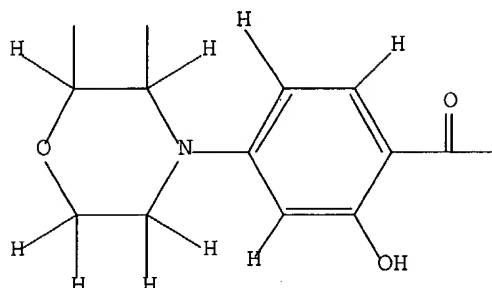


RN 404011-13-8 CAPLUS

CN Ethanone, 2-hydroxy-1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA
INDEX NAME)



=> d l1; d his; log y
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

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L3 14 S L1 FUL

FILE 'CAPLUS' ENTERED AT 16:58:53 ON 26 OCT 2004
L4 4 S L3

FILE 'BEILSTEIN' ENTERED AT 16:59:28 ON 26 OCT 2004
L5 0 S L1
L6 0 S L1 FUL

FILE 'MARPAT' ENTERED AT 16:59:50 ON 26 OCT 2004

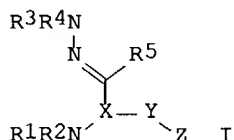
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	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-2.80

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claim 38,39 R² = OH

L7 ANSWER 1 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2004:631293 CAPLUS Full-text
 DN 141:181906
 TI Organophotoreceptor with charge transport material having an
 amino-substituted hydrazone group and an epoxy group
 IN Tokarski, Zbigniew; Jubran, Nusrallah; Montrimas, Edmundas; Gavutiene,
 Janina; Getautis, Vytautas; Law, Kam W.; Daskeviciene, Maryte
 PA Samsung Electronics Co., Ltd., S. Korea
 SO Eur. Pat. Appl., 26 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1443365	A1	20040804	EP 2004-250291	20040121
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	US 2004157145	A1	20040812	US 2003-749164	20031230
	JP 2004234012	A2	20040819	JP 2004-23802	20040130
PRAI	US 2003-444001P	P	20030131		
	US 2003-749164	A	20031230		
OS	MARPAT 141:181906				
GI					



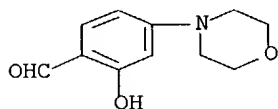
AB The present invention provides an organo photoreceptor comprising an elec. conductive substrate and a photoconductive element on the elec. conductive substrate, the photoconductive element comprising: (a) a charge transport material having the formula I. (R¹-R⁴ = alkyl group, alkaryl group, aryl group, or a part of a cyclic group; R⁵ = H, alkyl group, alkaryl group, aryl group, heterocyclic group; X comprises an aromatic group, such as an aryl group or an aromatic heterocyclic group; Y = -(CH₂)_m-; m = 1-20; inclusive, and one or more of the methylene groups is optionally replaced Z comprises an epoxy group); and (b) a charge generating compound Corresponding electrophotog. apparatuses and imaging methods are described.

IT 70362-07-1

RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of charge transport material for electrophotog. organo photoreceptor)

RN 70362-07-1 CAPLUS

CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



IT 732289-96-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);

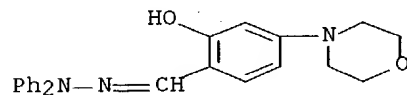
RACT

(Reactant or reagent)

(preparation of charge transport material for electrophotog. organo
photoreceptor)

RN 732289-96-2 CAPLUS

CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)-, diphenylhydrazone (9CI) (CA
INDEX NAME)



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2004:627189 CAPLUS Full-text

TI Isoform-specific phosphoinositide 3-kinase inhibitors from an arylmorpholine scaffold

AU Knight, Zachary A.; Chiang, Gary G.; Alaimo, Peter J.; Kenski, Denise M.;

CS Ho, Caroline B.; Coan, Kristin; Abraham, Robert T.; Shokat, Kevan M. Program in Chemistry and Chemical Biology, University of California, San Francisco, CA, 94143, USA

SO Bioorganic & Medicinal Chemistry (2004), 12(17), 4749-4759

CODEN: BMECEP; ISSN: 0968-0896

PB Elsevier Ltd.

DT Journal

LA English

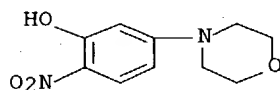
AB Phosphoinositide 3-kinases (PI3-Ks) are an ubiquitous class of signaling enzymes that regulate diverse cellular processes including growth, differentiation, and motility. Physiol. roles of PI3-Ks have traditionally been assigned using two pharmacol. inhibitors, LY294002 and wortmannin. Although these compds. are broadly specific for the PI3-K family, they show little selectivity among family members, and the development of isoform-specific inhibitors of these enzymes has been long anticipated. Herein, the preparation of two classes of arylmorpholine PI3-K inhibitors and the characterization of their specificity against a comprehensive panel of targets within the PI3-K family are reported. Multiplex inhibitors that potently inhibit distinct subsets of PI3-K isoforms, including the first selective inhibitor of p110 β /p110 δ (IC₅₀ p110 β = 0.13 μ M, p110 δ = 0.63 μ M), were identified. Trends that suggest certain PI3-K isoforms may be more sensitive to potent inhibition by arylmorpholines, thereby guiding future drug design based on this pharmacophore, were also identified.

IT 175135-19-0

RL: PAC (Pharmacological activity); BIOL (Biological study)
(preparation (aryl)morpholine derivs. and study of their activity as isoform-specific phosphoinositide 3-kinase inhibitors in comparison to AMA 56)

RN 175135-19-0 CAPLUS

CN Phenol, 5-(4-morpholinyl)-2-nitro- (9CI) (CA INDEX NAME)

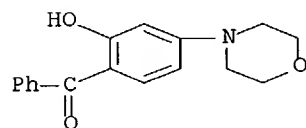


IT 404009-46-7P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation AMA 37 and study of its activity as isoform-specific phosphoinositide 3-kinase inhibitor)

RN 404009-46-7 CAPLUS

CN Methanone, [2-hydroxy-4-(4-morpholinyl)phenyl]phenyl- (9CI) (CA INDEX NAME)



IT 404010-44-2P

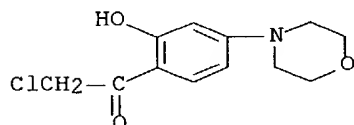
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL

(Biological study); PREP (Preparation)

(preparation AMA 48 and study of its activity as isoform-specific phosphoinositide 3-kinase inhibitor)

RN 404010-44-2 CAPLUS

CN Ethanone, 2-chloro-1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



IT 70362-07-1P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT

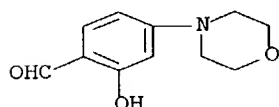
(Reactant

or reagent)

(preparation IC 60211 and study of its activity as isoform-specific phosphoinositide 3-kinase inhibitor)

RN 70362-07-1 CAPLUS

CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



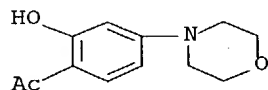
IT 404009-40-1P, IC 86621

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation IC 86621 and study of its activity as isoform-specific phosphoinositide 3-kinase inhibitor)

RN 404009-40-1 CAPLUS

CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2004:7906 CAPLUS Full-text

DN 140:368226

TI DNA-dependent protein kinase inhibitors as drug candidates for the treatment of cancer

AU Kashishian, Adam; Douangpanya, Heather; Clark, Darcey; Schlachter, Stephen T.; Eary, C. Todd; Schiro, Justin G.; Huang, Hongmei; Burgess, Larry E.; Kesicki, Edward A.; Halbrook, James

CS ICOS Corporation, Bothell, WA, USA

SO Molecular Cancer Therapeutics (2003), 2(12), 1257-1264
CODEN: MCTOCF; ISSN: 1535-7163

PB American Association for Cancer Research

DT Journal

LA English

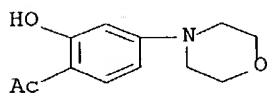
AB Cancer presents a difficult challenge for oncologists, as there are few therapies that specifically target disease cells. Existing treatment strategies rely heavily on phys. and chemical agents that nonspecifically affect DNA metabolism. To improve the effectiveness of these treatments, we have identified a new class of protein kinase inhibitor that targets a major DNA repair pathway. A representative of this class, 1-(2-hydroxy-4-morpholin-4-yl-phenyl)-ethanone, inhibits the DNA-dependent protein kinase (DNA-PK) and differs significantly from previously studied DNA-PK inhibitors both structurally and functionally. DNA-PK participates in the cellular response to and repair of chromosomal DNA double-strand breaks (DSBs). These new selective inhibitors recapitulate the phenotype of DNA-PK defective cell lines including those from SCID mice. These compds. directly inhibit the repair of DNA DSBs and consequently enhance the cytotoxicity of phys. and chemical agents that induce DSBs but not other DNA lesions. In contrast to previously studied DNA-PK inhibitors, these compds. appear benign, exhibiting no toxic effects in the absence of DSB-inducing treatments. Most importantly, 1-(2-hydroxy-4-morpholin-4-yl-phenyl)-ethanone synergistically enhances radiation-induced tumor control in a mouse-human xenograft assay. These studies validate DNA-PK as a cancer drug target and suggest a new approach for enhancing the effects of existing cancer therapies.

IT 404009-40-1 404011-13-8 683270-05-5

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(DNA-dependent protein kinase inhibitors as drug candidates for treatment of cancer in relation to RPA phosphorylation)

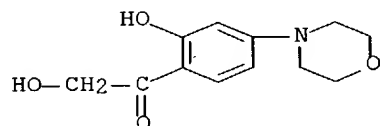
RN 404009-40-1 CAPLUS

CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



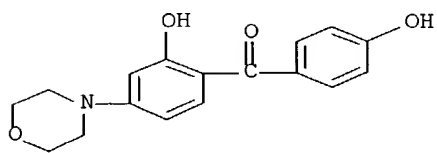
RN 404011-13-8 CAPLUS

CN Ethanone, 2-hydroxy-1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



RN 683270-05-5 CAPLUS

CN Methanone, [2-hydroxy-4-(4-morpholinyl)phenyl] (4-hydroxyphenyl)- (9CI)
(CA INDEX NAME)



RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:830035 CAPLUS Full-text

DN 140:317212

TI Interactive Competition Between Homologous Recombination and Non-Homologous End Joining

AU Allen, Chris; Halbrook, James; Nickoloff, Jac A.

CS Department of Molecular Genetics and Microbiology, University of New Mexico School of Medicine, Albuquerque, NM, 87131, USA

SO Molecular Cancer Research (2003), 1(12), 913-920
CODEN: MCROC5; ISSN: 1541-7786

PB American Association for Cancer Research

DT Journal

LA English

AB DNA-dependent protein kinase (DNA-PK), composed of Ku70, Ku80, and the catalytic subunit (DNA-PKcs), is involved in double-strand break (DSB) repair by non-homologous end joining (NHEJ). DNA-PKcs defects confer ionizing radiation sensitivity and increase homologous recombination (HR). Increased HR is consistent with passive shunting of DSBs from NHEJ to HR. We therefore predicted that inhibiting the DNA-PKcs kinase would increase HR. A novel DNA-PKcs inhibitor (1-(2-hydroxy-4-morpholin-4-yl-phenyl)-ethanone; designated IC86621) increased ionizing radiation sensitivity but surprisingly decreased spontaneous and DSB-induced HR. Wortmannin also inhibits DNA-PKcs and reduces DSB-induced HR. IC86621 did not affect HR product outcome, indicating that it affects HR initiation. Thus, HR is increased in the absence of DNA-PKcs, but decreased when DNA-PKcs is catalytically inactive, suggesting interactive competition between HR and NHEJ. The effects of IC86621 and wortmannin were proportional to the level of DNA-PKcs, consistent with inhibited DNA-PKcs acting in a dominant neg. manner. We propose that inhibition of DNA-PKcs blocks its autophosphorylation, prevents dissociation of DNA-PKcs from DNA ends, and thereby blocks both HR and NHEJ. By blocking the two major DSB repair pathways, DNA-PKcs inhibitors should radiosensitize at all cell-cycle stages and are therefore excellent candidates for augmenting cancer radiotherapy.

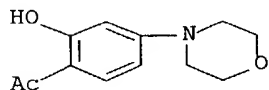
IT 404009-40-1, IC 86621

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(interactive competition between homologous recombination and non-homologous end joining: DNA-PKcs inhibitors as radiosensitizers)

RN 404009-40-1 CAPLUS

CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



RE.CNT 73 THERE ARE 73 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:696882 CAPLUS Full-text

DN 139:230615

TI Preparation of benzofurans and benzothiophenes useful in the treatment of hyperproliferative disorders

IN Zhang, Chengzhi; Burke, Michael; Chen, Zhi; Dumas, Jacques; Fan, Dongping; Fan, Jianmei; Hatoum-Mokdad, Holia; Jones, Benjamin D.; Ladouceur, Gaetan; Lee, Wendy; Phillips, Barton

PA Bayer Pharmaceuticals Corporation, USA

SO PCT Int. Appl., 138 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003072561	A1	20030904	WO 2003-US5396	20030221
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
PRAI	US 2002-359011P	P	20020222		
	US 2002-399886P	P	20020731		
OS	MARPAT 139:230615				
GI					

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [wherein X = O, S; R1 = H, alkyl, (CO)alkyl, benzoyl; R2 = (un)substituted Ph, naphthyl, (un)substituted heterocyclyl; R3 = H, OH, CN, alkyl, alkoxy, halo, haloalkyl, haloalkoxy; R4 = piperonyl, (un)substituted heterocyclyl, Ph and naphthyl; R5, R6 = independently H, OH, CN, alkyl, alkoxy, halo, haloalkyl and haloalkoxy; and their pharmaceutically acceptable salts or esters] were prepared as antitumor agents for treatment of hyperproliferative disorders. For example, II was prepared from 2-bromo-3'-methoxy-acetophenone by cyclocondensation with acetamide at 110° for 40 h, demethylation in DCM at room temperature for 2 h, reaction with paraformaldehyde in CH3CN/TEA in the presence of MgCl2 at reflux for 17 h, reaction with nitroethane in AcOH/AcONa at reflux for 17 h, and K2CO3-catalyzed cyclocondensation of the resultant nitrile with 2-methoxyphenacyl bromide in anhydrous DMF. III was prepared, in 28.2% yield, by Pd-cross coupling of (3-amino-6-iodo-1-benzothiophene-2-yl)(2,4-dichlorophenyl)methanone with pyridine-3-boronic acid in 1,2-dimethoxyethane at 80° for 18 h. I showed a significant inhibition of tumor cell proliferation in the adherent tumor cell proliferation assay (no data). Thus, I and their formulations are useful as antitumor agents (no data).

IT 404009-32-1P, 2-Hydroxy-4-(morpholin-4-yl)benzonitrile

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);

RACT

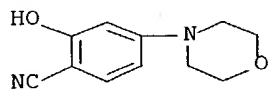
(Reactant or reagent)

(intermediate; preparation of benzofurans and benzothiophenes for treatment

of hyper-proliferative disorders)

RN 404009-32-1 CAPLUS

CN Benzonitrile, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:356424 CAPLUS Full-text

DN 138:368765

TI Preparation of 4-oxo-4H-chromene-2-carboxamides and 4-oxo-1,4-dihydroquinoline-2-carboxamides as 5-HT antagonists for treatment of psychiatric disorders

IN Chapdelaine, Marc; Davenport, Timothy; Haeberlein, Markus; Horschler, Carey; McCauley, John; Pierson, Edward; Sohn, Daniel

PA Astrazeneca AB, Swed.

SO PCT Int. Appl., 160 pp.

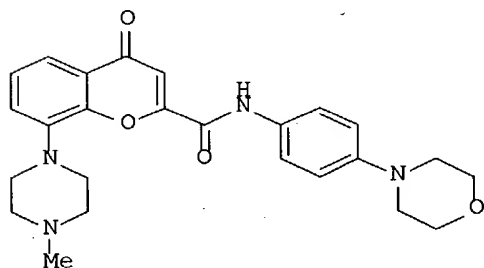
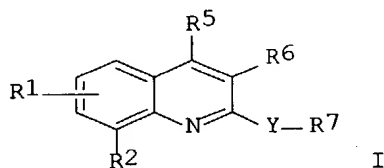
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003037872	A1	20030508	WO 2002-SE1989	20021101
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	EP 1451158	A1	20040901	EP 2002-782061	20021101
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK			
PRAI	SE 2001-3649	A	20011101		
	WO 2002-SE1989	W	20021101		
OS	MARPAT 138:368765				
GI					



AB Quinolines I [wherein R1 = independently H, halo, OH, CN, MeO, MeS, NHA, NA2, NHCOA, CONH2, CONHA, CONA2, OA, aryl, or (un)substituted (cyclo)alkyl; R2 = NR3(CH2)nN(R3)2, QN(R3)2, NR3QR3, or (un)substituted piperazinyl, homopiperazinyl, or 1,4-diazacyclooctyl; R3 = H, AOH, or (un)substituted (cyclo)alkyl, alkenyl, or alkynyl; R4 = H or (un)substituted alkyl; R5 = O, OR4, N(R4)2 or SR4; R6 = H or Me; R7 =

(un)substituted aryl or heterocyclyl; R8 = CH2, CO, SO2, SO2NH, CONH, O, S, SO, or heterocyclyl connected to R7 by a ring fusion or single bond; A = (un)substituted (cyclo)alkyl, alkenyl, or alkynyl; Q = heterocyclyl; Y = CONH, CONA, NHCO, CSNH, CH2NH, COCH2, CH2CO, CO-piperazinediyl, COR8, NACO, CSNA, CH2NA, NACH2, or 5-membered heterocyclyl] are disclosed as 5-HT1B and 5-HT1D antagonists. Related 4-oxo-4H-chromene-2-carboxamides and 4-oxo-1,4-dihydroquinoline-2-carboxamides were prepared and tested for biol. activity. For example, reaction of di-Et acetylenedicarboxylate with 2-bromophenol in the presence of a catalytic amount of tetrabutylammonium fluoride afforded 2-(2-bromophenoxy)but-2-enedioic acid di-Et ester (91%), which was saponified with NaOH to give the diacid (88%). Cyclization using H2SO4 in EtOH provided Et 8-bromo-4-oxo-4H-chromene-2-carboxylate (24%). Pd-catalyzed substitution with N-methylpiperazine (70%), conversion to the HCl salt of the acid (100%), and amidation with 4-(4-morpholinyl)aniline in the presence of HOBt and TBTU in DMF and TEA gave II. All example compds. showed affinity for 5-HT1B and 5-HT1D receptors with Ki values of < 10 µM. II was among twelve example compds. which reversed 5-HT1B agonist-induced hypothermia in guinea pigs in a dosage range of 0.006 mg/kg - 5.5 mg/kg. In addition, four chromenones demonstrated activity in a learned helplessness assay for antidepressant/antianxiety activity. I are useful for the treatment of psychiatric disorders including but not limited to depression, generalized anxiety, eating disorders, dementia, panic disorder, and sleep disorders (no data). The compds. may also be useful in the treatment of gastrointestinal disorders, motor disorders, endocrine disorders, vasospasm, and sexual dysfunction (no data).

IT **442548-49-4P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(5-HT antagonist; preparation of chromenones and quinolinones as 5-

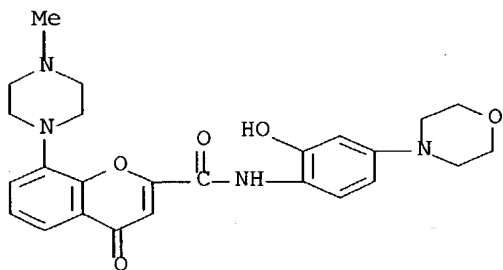
HT1B and

5-HT1D antagonists for treatment of psychiatric disorders)

RN 442548-49-4 CAPLUS

CN 4H-1-Benzopyran-2-carboxamide, N-[2-hydroxy-4-(4-morpholinyl)phenyl]-8-(4-

methyl-1-piperazinyl)-4-oxo- (9CI) (CA INDEX NAME)



IT **25912-15-6P**, 4-(4-Amino-3-hydroxyphenyl)morpholine

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);

RACT

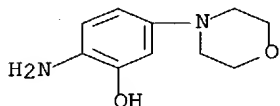
(Reactant or reagent)

and (intermediate; preparation of chromenones and quinolinones as 5-HT1B

5-HT1D antagonists for treatment of psychiatric disorders)

RN 25912-15-6 CAPLUS

CN Phenol, 2-amino-5-(4-morpholinyl)- (9CI) (CA INDEX NAME)



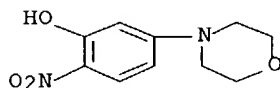
IT 175135-19-0, 4-(4-Nitro-3-hydroxyphenyl)morpholine

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of chromenones and quinolinones as 5-HT1B and 5-HT1D
antagonists for treatment of psychiatric disorders)

RN 175135-19-0 CAPLUS

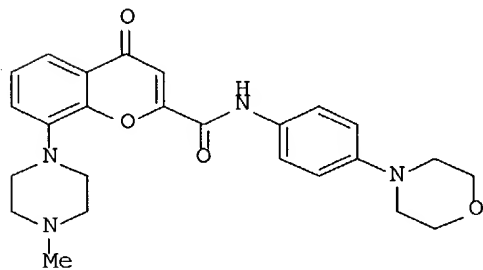
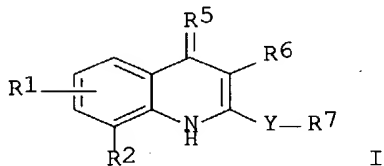
CN Phenol, 5-(4-morpholinyl)-2-nitro- (9CI) (CA INDEX NAME)



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 7 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2003:356423 CAPLUS Full-text
 DN 138:368764
 TI Preparation of 4-oxo-4H-chromene-2-carboxamides and 4-oxo-1,4-dihydroquinoline-2-carboxamides as 5-HT antagonists for treatment of psychiatric disorders
 IN Chapdelaine, Marc; Davenport, Timothy; Haeberlein, Markus; Horchler, Carey; Pierson, Edward; Sohn, Daniel; McCauley, John
 PA Astrazeneca AB, Swed.
 SO PCT Int. Appl., 137 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003037871	A1	20030508	WO 2002-SE1987	20021101
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG EP 1451157 A1 20040901 EP 2002-782060 20021101 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
PRAI	SE 2001-3648	A	20011101		
	WO 2002-SE1987	W	20021101		
OS	MARPAT 138:368764				
GI					

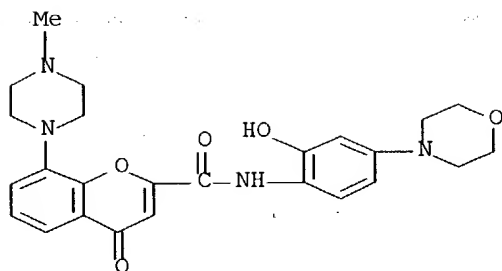


AB Title quinolinones I [wherein R1 = H, halo, OH, CN, MeO, MeS, NHA, NA2, NHCOA, CONH2, CONHA, CONA2, OA, aryl, or (un)substituted (cyclo)alkyl; R2 = NR3(CH2)nN(R3)2, QN(R3)2, NR3QR3, or (un)substituted piperazinyl, homopiperazinyl, or 1,4-diazacyclooctyl; R3 = H, AOH, or (un)substituted (cyclo)alkyl, alkenyl, or alkynyl; R4 = H or (un)substituted alkyl; R5 = O, NR4, or S; R6 = H or Me; R7 = (un)substituted aryl or heterocyclyl; R8 = CH2, CO, SO2, SO2NH, CONH, O, S, SO, or heterocyclyl connected to R7 by a ring fusion or single bond; A = (un)substituted (cyclo)alkyl, alkenyl, or alkynyl; Q = heterocyclyl; Y = CONH, CONA, NHCO, CSNH, CH2NH, COCH2, CH2CO, CO-piperazinediyl, COR8, NACO, CSNA, CH2NA, NACH2, or 5-membered heterocyclyl] and related chromenones were prepared as 5-HT1B and 5-HT1D antagonists. For example, reaction of di-Et acetylenedicarboxylate with 2-bromophenol in the presence of a catalytic amount of tetrabutylammonium fluoride afforded 2-(2-bromophenoxy)but-2-enedioic acid di-Et ester (91%), which was saponified with NaOH to give the diacid (88%). Cyclization using H2SO4 in EtOH provided Et 8-bromo-4-oxo-4H-chromene-2-carboxylate (24%). Pd-catalyzed substitution with N-methylpiperazine (70%), conversion to the HCl salt of the acid (100%), and amidation with 4-(4-morpholinyl)aniline in the presence of HOBt and TBTU in DMF and TEA gave II. All example compds. showed affinity for 5-HT1B and 5-HT1D receptors with Ki values of < 10 µM. II was among twelve example compds. which reversed 5-HT1B agonist-induced hypothermia in guinea pigs in a dosage range of 0.006 mg/kg - 5.5 mg/kg. In addition, four chromenones demonstrated activity in a learned helplessness assay for antidepressant/antianxiety activity. Thus, I are useful for the treatment of psychiatric disorders including but not limited to depression, generalized anxiety, eating disorders, dementia, panic disorder, and sleep disorders (no data). The compds. may also be useful in the treatment of gastrointestinal disorders, motor disorders, endocrine disorders, vasospasm, and sexual dysfunction (no data).

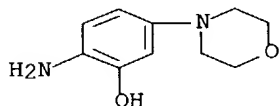
IT **442548-49-4P**, 8-(4-Methylpiperazin-1-yl)-4-oxo-4H-chromene-2-carboxylic acid [2-hydroxy-4-(morpholin-4-yl)phenyl]amide
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (5-HT antagonist; preparation of chromenones and quinolinones as 5-HT1B and 5-HT1D antagonists for treatment of psychiatric disorders)

RN 442548-49-4 CAPLUS

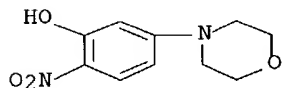
CN 4H-1-Benzopyran-2-carboxamide, N-[2-hydroxy-4-(4-morpholinyl)phenyl]-8-(4-methyl-1-piperazinyl)-4-oxo- (9CI) (CA INDEX NAME)



IT **25912-15-6P**, 4-(4-Amino-3-hydroxyphenyl)morpholine
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
 RACT
 (Reactant or reagent)
 (intermediate; preparation of chromenones and quinolinones as 5-HT1B
 and 5-HT1D antagonists for treatment of psychiatric disorders)
 RN 25912-15-6 CAPLUS
 CN Phenol, 2-amino-5-(4-morpholinyl)- (9CI) (CA INDEX NAME)



IT **175135-19-0**, 4-(4-Nitro-3-hydroxyphenyl)morpholine
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of chromenones and quinolinones as 5-HT1B and 5-HT1D
 antagonists for treatment of psychiatric disorders)
 RN 175135-19-0 CAPLUS
 CN Phenol, 5-(4-morpholinyl)-2-nitro- (9CI) (CA INDEX NAME)



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 8 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:539473 CAPLUS Full-text

DN 137:109293

TI Preparation of piperazinylchromans as 5-HT1B and 5-HT1D agonists/antagonists useful as antimigraine drugs.

IN Chapdelaine, Marc; Davenport, Timothy; Haeberlein, Markus; Horchler, Carey; McCauley, John; Pierson, Edward; Sohn, Daniel

PA Astrazeneca Ab, Swed.

SO PCT Int. Appl., 139 pp.

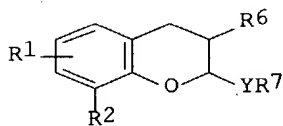
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002055014	A2	20020718	WO 2002-SE70	20020115
	WO 2002055014	A3	20021114		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	EP 1353915	A2	20031022	EP 2002-715919	20020115
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	BR 2002006514	A	20040106	BR 2002-6514	20020115
	JP 2004517130	T2	20040610	JP 2002-555751	20020115
	NO 2003003205	A	20030902	NO 2003-3205	20030715
	US 2004110745	A1	20040610	US 2003-466565	20030716
PRAI	US 2001-262108P	P	20010116		
	SE 2001-3646	A	20011101		
	WO 2002-SE70	W	20020115		
OS	MARPAT 137:109293				
GI					



AB Title compds. [I; R1 = H, thiomethoxy, NHA, NA2, NHCOA, halo, OH, OA, cyano, aryl, (substituted) alkyl, cycloalkyl, etc.; A = (substituted) alkyl, cycloalkyl, alkenyl, alkynyl; R2 = (substituted) piperazinyl, homopiperazinyl, aminoalkylamino, aminoheterocyclyl, heterocyclylamino; R6 = H, Me; Y = CONH, CONA, CSNH, CH2CO, CH2NA, piperazinylcarbonyl, 5-membered heterocyclylene, etc.; R7 = (substituted) mono- or bicyclic

aryl, heterocyclyl], were prepared Thus, 8-(4-methyl-1-piperazinyl)chroman-2-carboxylic acid hydrochloride (preparation given) in DMF was treated sequentially with 1-hydroxybenzotriazole, O-(1H-benzotriazol-1-yl)-N,N,N',N'-pentamethylenuronium tetrafluoroborate, Et3N, and 4-(4-morpholinyl)aniline (preparation given) followed by stirring overnight to give 8-(4-methyl-1-piperazinyl)chroman-2-carboxylic acid (4-morpholin-4-ylphenyl)amide. Several I showed 5-HT1B antagonist activity in the range 0.006-5.5 mg/kg in a screen for reversal of hypothermia in guinea pigs.

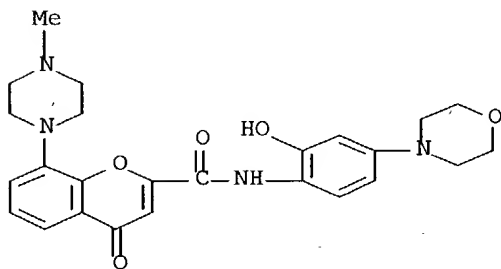
IT **442548-49-4P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of piperazinylchromans as 5-HT1B and 5-HT1D agonists/antagonists useful as antimigraine drugs)

RN 442548-49-4 CAPLUS

CN 4H-1-Benzopyran-2-carboxamide, N-[2-hydroxy-4-(4-morpholinyl)phenyl]-8-(4-methyl-1-piperazinyl)-4-oxo- (9CI) (CA INDEX NAME)



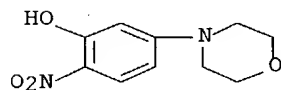
IT **175135-19-0**

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of piperazinylchromans as 5-HT1B and 5-HT1D agonists/antagonists useful as antimigraine drugs)

RN 175135-19-0 CAPLUS

CN Phenol, 5-(4-morpholinyl)-2-nitro- (9CI) (CA INDEX NAME)



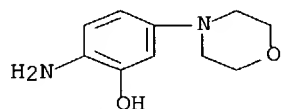
IT **25912-15-6P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);

RACT (Reactant or reagent) (preparation of piperazinylchromans as 5-HT1B and 5-HT1D agonists/antagonists useful as antimigraine drugs)

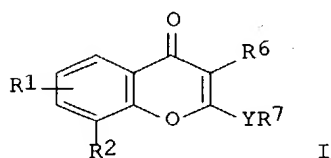
RN 25912-15-6 CAPLUS

CN Phenol, 2-amino-5-(4-morpholinyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 9 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2002:539472 CAPLUS Full-text
 DN 137:93772
 TI Preparation of piperazinylchromenones as 5-HT1B 5-HT1D
 agonists/antagonists useful as drugs.
 IN Chapdelaine, Marc; Davenport, Timothy; Haerberlein, Markus; Horschler,
 Carey; McCauley, John; Pierson, Edward; Sohn, Daniel
 PA Astrazeneca Ab, Swed.
 SO PCT Int. Appl., 150 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002055013	A2	20020718	WO 2002-SE69	20020115
	WO 2002055013	A3	20021114		
	WO 2002055013	C1	20040513		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP	1353914	A2	20031022	EP 2002-729623	20020115
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	BR 2002006513	A	20040106	BR 2002-6513	20020115
	JP 2004517129	T2	20040610	JP 2002-555750	20020115
	NO 2003003204	A	20030902	NO 2003-3204	20030715
	US 2004087575	A1	20040506	US 2003-466449	20030716
PRAI	US 2001-262109P	P	20010116		
	SE 2001-3647	A	20011101		
	WO 2002-SE69	W	20020115		
OS	MARPAT 137:93772				
GI					



AB Title compds. [I; R1 = H, thiomethoxy, NHA, NA2, NHCOA, halo, OH, OA, cyano, aryl, (substituted) alkyl, cycloalkyl, etc.; A = (substituted) alkyl, cycloalkyl, alkenyl, alkynyl; R2 = (substituted) piperazinyl,

homopiperazinyl, aminoalkylamino, aminoheterocyclyl, heterocyclylamino; R6 = H, Me; Y = CONH, CONA, CSNH, CH2CO, CH2NA, piperazinylcarbonyl, 5-membered heterocyclylene, etc.; R7 = (substituted) mono- or bicyclic aryl, heterocyclyl], were prepared Thus, 8-(4-methyl-1-piperazin-1-yl)-4-oxo-4H-chromene-2-carboxylic acid hydrochloride (preparation given) in DMF/Et3N was treated sequentially with 1-hydroxybenzotriazole, O-(1H-benzotriazol-1-yl)-N,N,N',N'-pentamethyleuronium tetrafluoroborate, 4-dimethylaminopyridine, and 4-(4-morpholinyl)aniline (preparation given) to give 8-(4-methyl-1-piperazinyl)-N-[4-(4-morpholinyl)phenyl]-4-oxo-4H-chromene-2-carboxamide. Several I showed 5-HT1B antagonist activity in the range 0.006-5.5 mg/kg in a screen for reversal of hypothermia in guinea pigs.

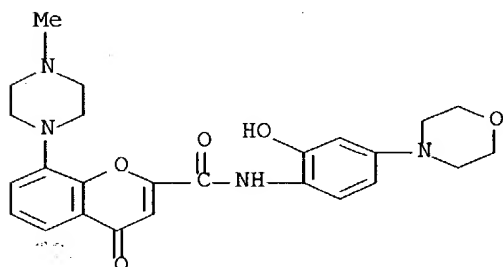
IT **442548-49-4P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of piperazinylchromenones as 5-HT1B 5-HT1D agonists/antagonists useful as drugs)

RN 442548-49-4 CAPLUS

CN 4H-1-Benzopyran-2-carboxamide, N-[2-hydroxy-4-(4-morpholinyl)phenyl]-8-(4-methyl-1-piperazinyl)-4-oxo- (9CI) (CA INDEX NAME)



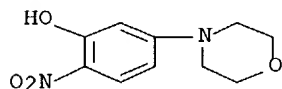
IT **175135-19-0**

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of piperazinylchromenones as 5-HT1B 5-HT1D agonists/antagonists useful as drugs)

RN 175135-19-0 CAPLUS

CN Phenol, 5-(4-morpholinyl)-2-nitro- (9CI) (CA INDEX NAME)



IT **25912-15-6P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);

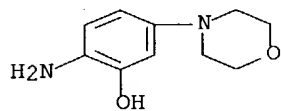
RACT

(Reactant or reagent)

(preparation of piperazinylchromenones as 5-HT1B 5-HT1D
agonists/antagonists
useful as drugs)

RN 25912-15-6 CAPLUS

CN Phenol, 2-amino-5-(4-morpholinyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 10 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:539471 CAPLUS Full-text

DN 137:109205

TI Preparation of 4-oxo-4H-chromene-2-carboxamides and related compounds as antagonists or agonists of serotonin 5HT1B and 5HT1D receptors

IN Chapdelaine, Marc; Davenport, Timothy; Haeberlein, Markus; Horchler, Carey; McCauley, John; Pierson, Edward; Sohn, Daniel

PA Astrazeneca Ab, Swed.

SO PCT Int. Appl., 147 pp.

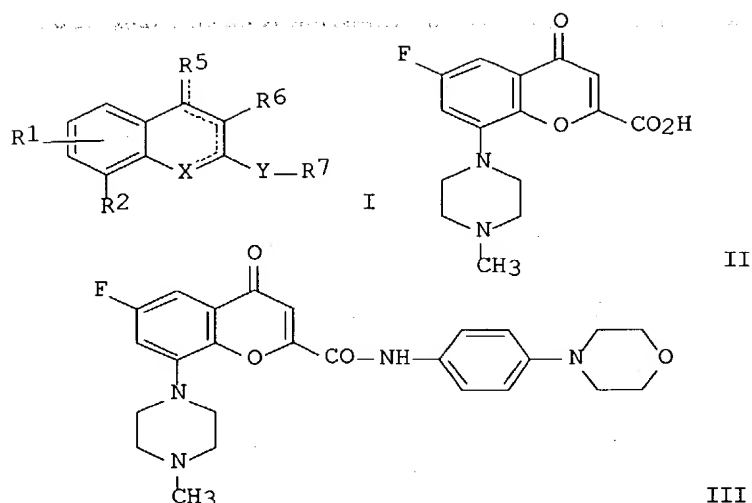
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002055012	A2	20020718	WO 2002-SE68	20020115
	WO 2002055012	A3	20021114		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP	1353913	A2	20031022	EP 2002-729622	20020115
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	BR 2002006512	A	20040106	BR 2002-6512	20020115
	JP 2004517128	T2	20040610	JP 2002-555749	20020115
	US 2003013708	A1	20030116	US 2002-51776	20020116
	NO 2003003203	A	20030902	NO 2003-3203	20030715
	US 2004082591	A1	20040429	US 2003-466540	20030716
PRAI	US 2001-262107P	P	20010116		
	SE 2001-3650	A	20011101		
	WO 2002-SE68	W	20020115		
OS	MARPAT 137:109205				
GI					



AB Title compds. I and their pharmaceutically acceptable salts [R1 = H, alkyl, cycloalkyl, thiomethoxy, etc.; R2 = NR3R3; R3 independently = H, (un)substituted alkylamine e.g., alkyl, alkenyl, alkynyl amino-heterocycle, etc; R3-R3 = (un)substituted cycloalkylamine or amino-heterocycle e.g., alkyl, alkenyl, alkynyl, etc; R5 = H, O, S, etc.; R6 = H, Me; R7 = (un)substituted mono- or bicyclo- aromatic, (un)substituted heterocycle; X = O, N, NH, S; Y = CONH, NHCO, CSNH, etc.] were prep'd with the proviso that multiple bonds are separated from each other by at least one single bond. For example, condensation of 4-oxo-4H-chromene-2-carboxylic acid II e.g., prepared from diethylacetylenedicarboxylate and 2-bromo-4-fluorophenol in 5 steps, and 4-morpholin-4-yl-phenylamine provided preferred 4-oxo-4H-chromene-2-carboxamide III. The utility of the compds. of the present invention were tested using a guinea pig hypothermia test, ED50 values for compds. I range from 0.006-5.5 mg/kg. Compds. I are disclosed to be antagonists or agonists of serotonin 5HT1B and 5HT1D receptors (no data provided). Also I are claimed for use in the treatment of gastrointestinal disorders, cardiovascular regulation, motor disorders, etc..

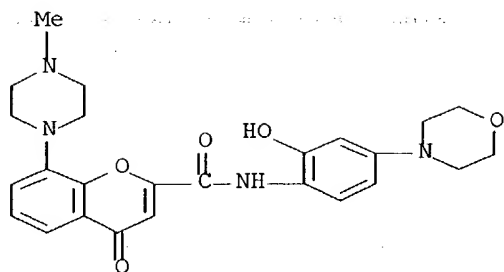
IT **442548-49-4P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of 4-oxo-4H-chromene-2-carboxamides and related compds. as antagonists or agonists of serotonin 5HT1B and 5HT1D receptors)

RN 442548-49-4 CAPLUS

CN 4H-1-Benzopyran-2-carboxamide, N-[2-hydroxy-4-(4-morpholinyl)phenyl]-8-(4-methyl-1-piperazinyl)-4-oxo- (9CI) (CA INDEX NAME)

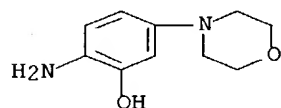


IT 25912-15-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (intermediate; preparation of 4-oxo-4H-chromene-2-carboxamides and related compds. as antagonists or agonists of serotonin 5HT1B and 5HT1D receptors)

RN 25912-15-6 CAPLUS

CN Phenol, 2-amino-5-(4-morpholinyl)- (9CI) (CA INDEX NAME)

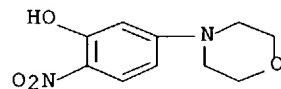


IT 175135-19-0

RL: RCT (Reactant); RACT (Reactant or reagent) (precursor; preparation of 4-oxo-4H-chromene-2-carboxamides and related compds. as antagonists or agonists of serotonin 5HT1B and 5HT1D receptors)

RN 175135-19-0 CAPLUS

CN Phenol, 5-(4-morpholinyl)-2-nitro- (9CI) (CA INDEX NAME)

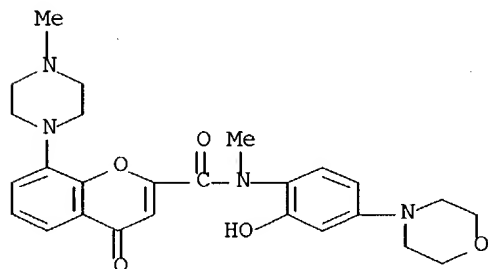


IT 442914-80-9P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses) (preparation of 4-oxo-4H-chromene-2-carboxamides and related compds. as antagonists or agonists of serotonin 5HT1B and 5HT1D receptors)

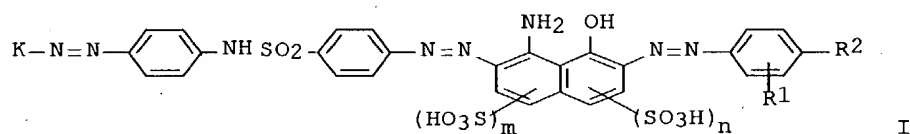
RN 442914-80-9 CAPLUS

CN 4H-1-Benzopyran-2-carboxamide, N-[2-hydroxy-4-(4-morpholinyl)phenyl]-N-methyl-8-(4-methyl-1-piperazinyl)-4-oxo- (9CI) (CA INDEX NAME)



L7 ANSWER 11 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2002:403616 CAPLUS Full-text
 DN 137:7497
 TI Manufacture of H acid-based trisazo dyes for leather dyeing
 IN Lamm, Gunther; Reichelt, Helmut
 PA BASF AG, Germany
 SO Ger. Offen., 22 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10059032	A1	20020529	DE 2000-10059032	20001128
	WO 2002044284	A1	20020606	WO 2001-EP13841	20011127
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG AU 2002018317 A5 20020611 AU 2002-18317 20011127				
PRAI	DE 2000-10059032	A	20001128		
	WO 2001-EP13841	W	20011127		
OS	CASREACT 137:7497; MARPAT 137:7497				
GI					



AB Trisazo dyes [I; R1 = H, C1-4 alkyl, halo, SO3H; R2 = R4NYR3, oxadiazolyl; R3 = H, (un)substituted C1-8 alkyl, (un)substituted C3-8 alkyl, (un)substituted Ph, etc.; R4 = (un)substituted C1-8 alkyl, Ph, tolyl, etc.; Y = CO, SO2, bond; R3R4 with NY can form 5-7-membered (annelated) hetero ring; K = residue of coupling component KH; m, n = 0, 1; m + n = 1, 2], useful for dyeing of leather, were manufactured by diazotization of 4-H2NC6H4NHSOC6H4NH2-4' and coupling reactions with H acid and other coupling components, e.g., phenols or anilines.

IT 431975-07-4

RL: TEM (Technical or engineered material use); USES (Uses)
 (manufacture of diaminodiphenyl sulfonamide-based trisazo dyes for leather dyeing)

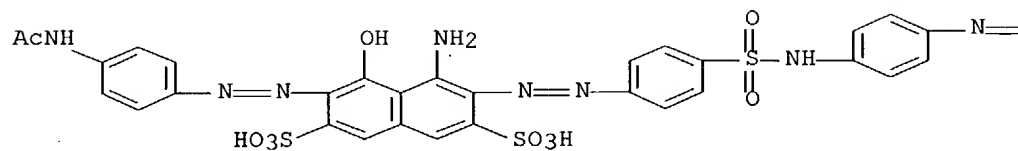
RN 431975-07-4 CAPLUS

CN 2,7-Naphthalenedisulfonic acid, 3-[[4-(acetylamino)phenyl]azo]-5-amino-

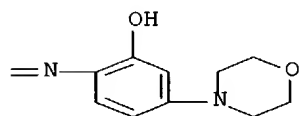
4-

hydroxy-6-[[4-[[[4-[[2-hydroxy-4-(4-
morpholinyl)phenyl]azo]phenyl]amino]su
lfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

PAGE 1-A

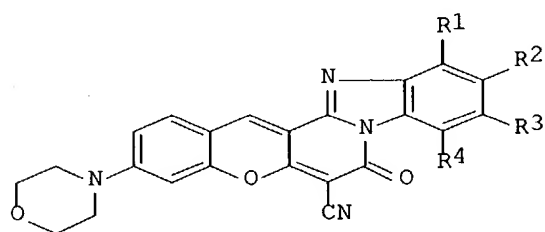


PAGE 1-B



L7 ANSWER 12 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2002:247796 CAPLUS Full-text
 DN 136:270284
 TI Benzopyran-type orange to red dye and organic electroluminescent device
 IN Sato, Hideki; Sato, Yoshiharu; Endo, Kyoko; Murata, Yukichi
 PA Mitsubishi Chemical Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002097382	A2	20020402	JP 2000-284749	20000920
PRAI	JP 2000-284749		20000920		
OS	MARPAT 136:270284				
GI					



I

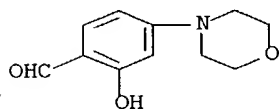
AB The morpholine-substituted benzopyran dye is that represented as I (R1-R4 = H, substituent; any groups in R1-R4 may form rings). The electroluminescent device involves a substrate, an anode, an organic layer, and a cathode laminated in this order wherein the organic layer contains I. The orange to red dye is suitable for thin film electroluminescent devices.

IT 70362-07-1

RL: RCT (Reactant); RACT (Reactant or reagent)
 (for preparation of morpholine-substituted benzopyran-type orange to red dye for organic electroluminescent device)

RN 70362-07-1 CAPLUS

CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 13 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:185097 CAPLUS Full-text

DN 136:247591

TI Preparation of arylmorpholines as inhibitors of DNA-dependent protein kinase and methods to potentiate cancer treatment

IN Halbrook, James; Kesicki, Edward; Burgess, Laurence E.; Schlachter, Stephen T.; Eary, Charles T.; Schiro, Justin G.; Huang, Hongmei; Evans, Michael; Han, Yongxin

PA Icos Corporation, USA

SO PCT Int. Appl., 247 pp.

CODEN: PIXXD2

DT Patent

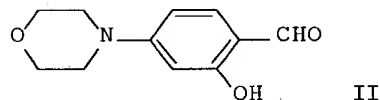
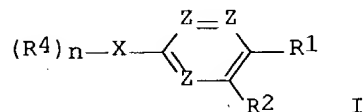
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002020500	A2	20020314	WO 2001-US26709	20010828
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	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	AU 2001088432	A5	20020322	AU 2001-88432	20010828
	US 2002165218	A1	20021107	US 2001-941897	20010828
	EP 1351946	A2	20031015	EP 2001-968164	20010828
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PRAI	US 2000-229899P	P	20000901		
	WO 2001-US26709	W	20010828		

OS MARPAT 136:247591

GI



AB Comps. that inhibit DNA-dependent protein kinase, I [n = 0-4; X = (un)substituted 4-7 membered aliphatic ring containing 0-3 heteroatoms consisting of N, O and S (X = morpholinyl preferred); Z = independently N or CR₃; R₃ = independently H, halo, CHO, alkoxy, etc.; R₁ = H, (un)substituted alkyl, cycloalkyl, CO, NO₂, etc.; R₂ = H, (un)substituted alkyl, carbamoyl, alkoxy, sulfamyl, etc.; with provision when X = morpholinyl, R₂ and R₄ and R₃ = H at each occurrence, then R₁ is different from COMe, phenylalkene, and NO₂; and with the provision that when X = morpholinyl, R₄ = H and Z = N at each occurrence, then R₁ and R₂ when taken together is different from triazole], were prepared

and compns. of I with other antineoplastic agents are claimed for use in cancer treatment therapy. Thus, II was prepared in 23% yield via formylation of 3-(4-morpholinyl)phenol. II demonstrated an IC50 value of 400 nM in DNA-PK assay. Preliminary results of animal tumor model studies indicate II enhanced the tumorigenic effect of total body irradiation (using 100-500 rad γ -radiation, II delayed tumor growth 1.2 to 1.8-fold relative to animals receiving radiation only).

IT **404011-14-9P 404011-15-0P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);

RACT

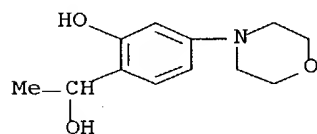
(Reactant or reagent)

(intermediate; preparation of arylmorpholines as inhibitors of DNA-dependent

protein kinase for cancer treatment)

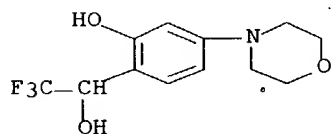
RN 404011-14-9 CAPLUS

CN Benzenemethanol, 2-hydroxy- α -methyl-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



RN 404011-15-0 CAPLUS

CN Benzenemethanol, 2-hydroxy-4-(4-morpholinyl)- α -(trifluoromethyl)- (9CI) (CA INDEX NAME)



IT **404011-22-9**

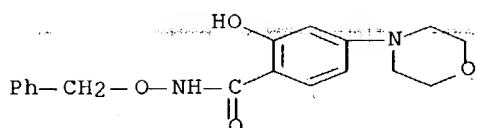
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of arylmorpholines as inhibitors of DNA-dependent protein

kinase for cancer treatment)

RN 404011-22-9 CAPLUS

CN Benzanide, 2-hydroxy-4-(4-morpholinyl)-N-(phenylmethoxy)- (9CI) (CA INDEX NAME)



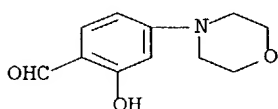
IT 70362-07-1P 404009-40-1P

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(target compound; preparation of arylmorpholines as inhibitors of DNA-dependent protein kinase for cancer treatment)

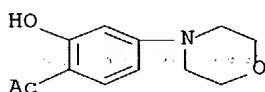
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CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



RN 404009-40-1 CAPLUS

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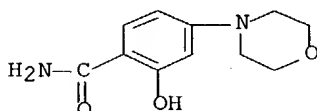
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404010-32-8P 404010-44-2P 404010-52-2P

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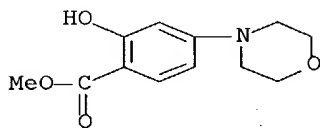
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RN 37893-38-2 CAPLUS

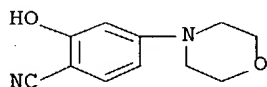
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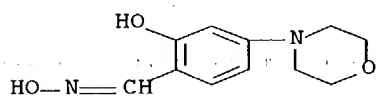
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INDEX
NAME)



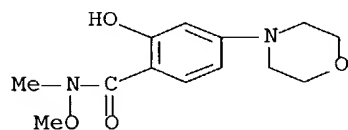
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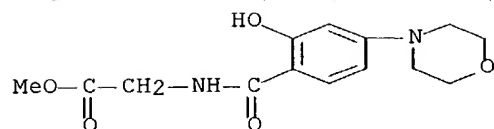
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CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)-, oxime (9CI) (CA INDEX NAME)



RN 404009-98-9 CAPLUS
CN Benzamide, 2-hydroxy-N-methoxy-N-methyl-4-(4-morpholinyl)- (9CI) (CA
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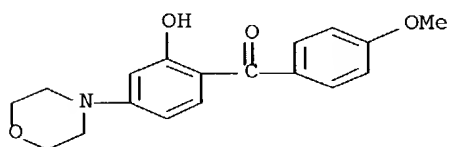


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CN Glycine, N-[2-hydroxy-4-(4-morpholinyl)benzoyl]-, methyl ester (9CI)
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INDEX NAME)



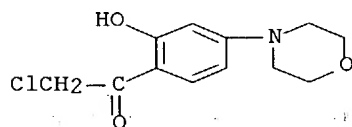
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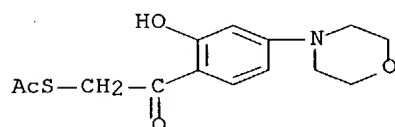
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CN Ethanone, 2-chloro-1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA
INDEX
NAME)



RN 404010-52-2 CAPLUS

CN Ethanethioic acid, S-[2-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-oxoethyl]
ester (9CI) (CA INDEX NAME)



IT 175135-19-0P 404009-17-2P 404009-36-5P
404009-42-3P 404009-44-5P 404009-46-7P
404009-48-9P 404009-75-2P 404009-86-5P
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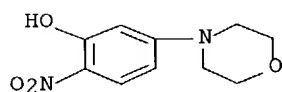
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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses).

(target compound; preparation of arylmorpholines as inhibitors of DNA-dependent protein kinase for cancer treatment)

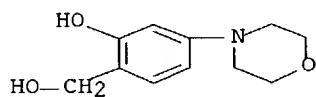
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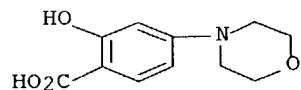
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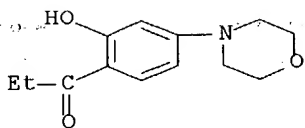
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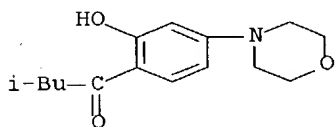
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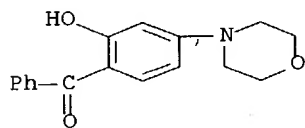
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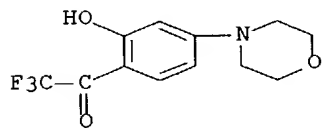
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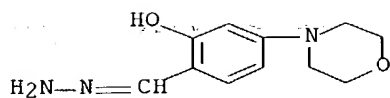
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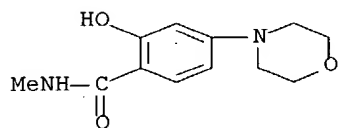
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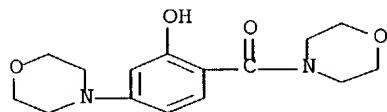
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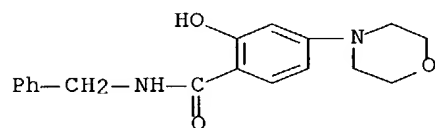
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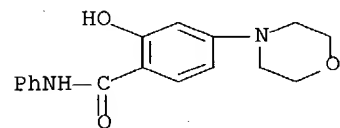
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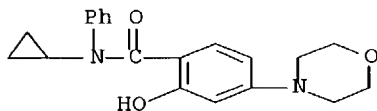


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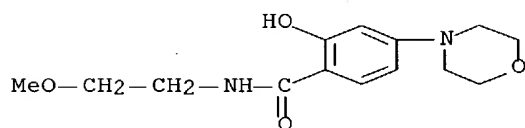
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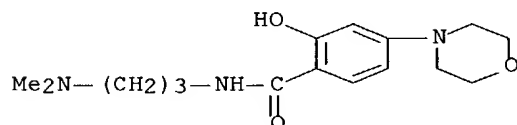
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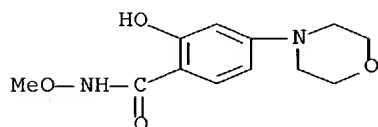
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 CN Benzamide, 2-hydroxy-N-(2-methoxyethyl)-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



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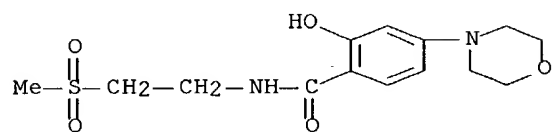
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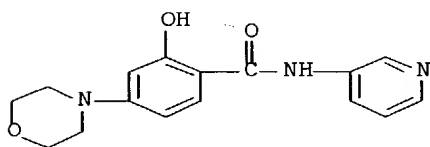
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(9CI)

(CA INDEX NAME)



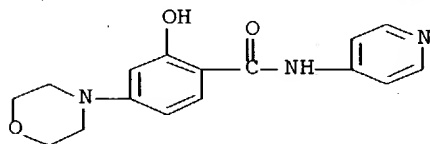
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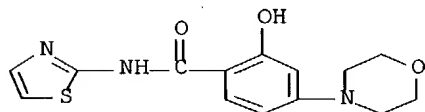
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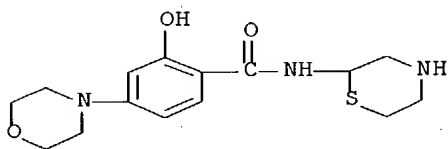
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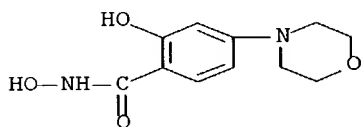
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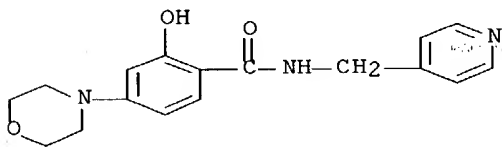
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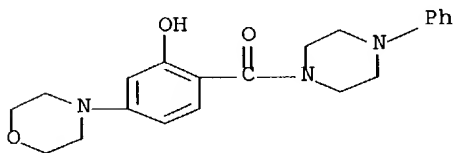
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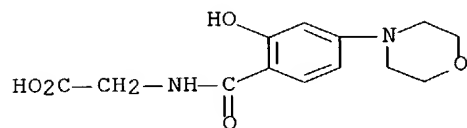
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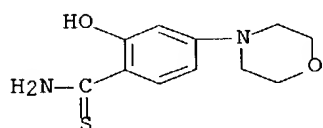
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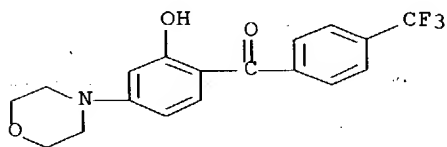
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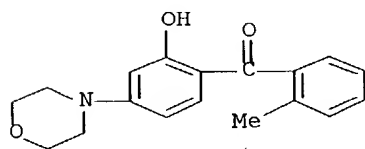
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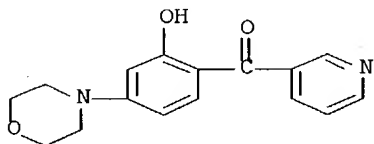
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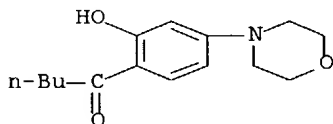
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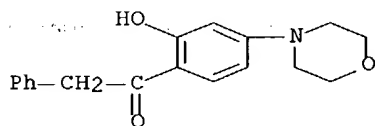
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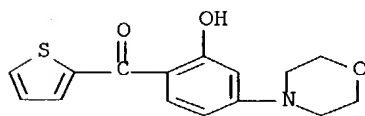
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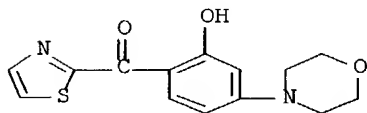
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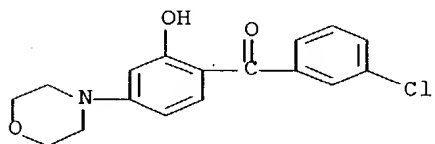
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INDEX NAME)



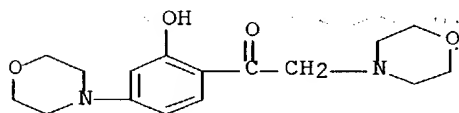
RN 404010-43-1 CAPLUS

CN Methanone, (3-chlorophenyl)[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI)
(CA INDEX NAME)



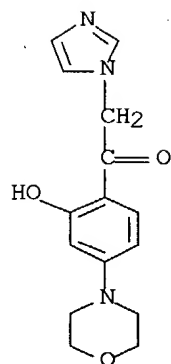
RN 404010-45-3 CAPLUS

CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-(4-morpholinyl)- (9CI)
(CA INDEX NAME)



RN 404010-46-4 CAPLUS

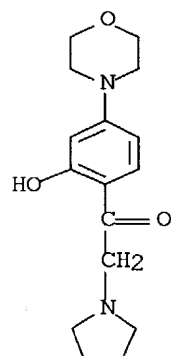
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-(1H-imidazol-1-yl)-
(9CI) (CA INDEX NAME)



RN 404010-47-5 CAPLUS

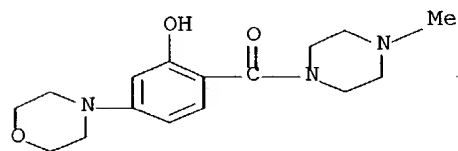
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-(1-pyrrolidinyl)-
(9CI)

(CA INDEX NAME)



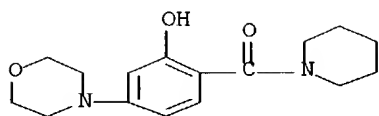
RN 404010-49-7 CAPLUS

CN Piperazine, 1-[2-hydroxy-4-(4-morpholinyl)benzoyl]-4-methyl- (9CI) (CA
INDEX NAME)



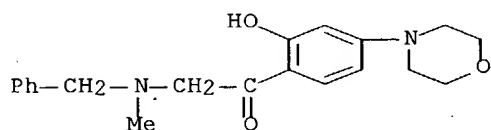
RN 404010-50-0 CAPLUS

CN Piperidine, 1-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX
NAME)



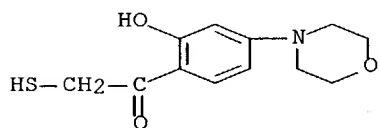
RN 404010-51-1 CAPLUS

CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-[methyl(phenylmethyl)amino]- (9CI) (CA INDEX NAME)



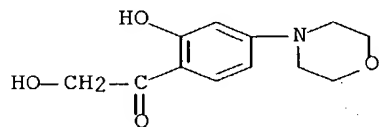
RN 404010-53-3 CAPLUS

CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-mercapto- (9CI) (CA INDEX NAME)



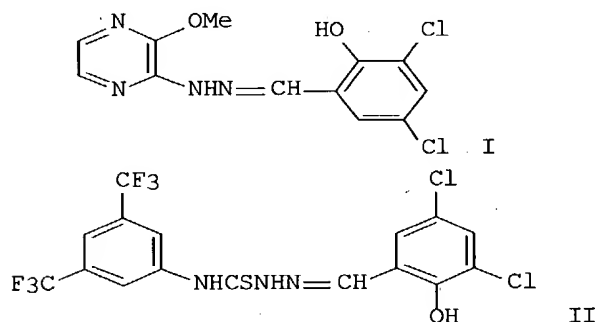
RN 404011-13-8 CAPLUS

CN Ethanone, 2-hydroxy-1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



L7 ANSWER 14 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2001:895648 CAPLUS Full-text
 DN 136:19729
 TI Hydrazone, hydrazine and thiosemicarbazone derivatives as antifungal agents
 IN Mei, Xiaodan; Wang, Peng; Caracoti, Andrei; Mingo, Pamela; Boyd, Vincent; Murray, Robert; Sisti, Nicholas J.; Xiang, Yi Bin; Zhu, Shuhao; Wobbe, C. Richard; Moore, Daniel
 PA Anadys Pharmaceuticals, Inc., USA
 SO U.S., 14 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6329378	B1	20011211	US 2000-501758	20000210
PRAI	US 1999-119387P	P	19990210		
	US 1999-141117P	P	19990625		
OS	MARPAT 136:19729				
GI					



AB Title compds. such as I and (E)-II were prepared as antifungal agents. Thus, I was prepared in 3 steps starting from 2,3-dichloropyrazine and proceeding via 2-chloro-3-methoxypyrazine and 2-hydrazinyl-3-methoxypyrazine, the latter then being reacted with 3,5-dichlorosalicylaldehyde. I showed min. inhibitory concns. of 1, 1, and 2 µg/mL against *Candida albicans*, *Saccharomyces cerevisiae*, and *Aspergillus nidulans*, resp.

IT **378781-00-1P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

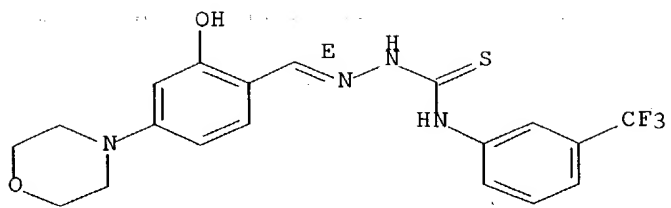
(hydrazone, hydrazine and thiosemicarbazone derivs. as antifungal agents)

RN 378781-00-1 CAPLUS

CN Hydrazinecarbothioamide, 2-[[2-hydroxy-4-(4-morpholinyl)phenyl]methylene]-

N-[3-(trifluoromethyl)phenyl]-, (2E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



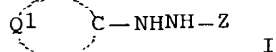
RE.CNT 2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 15 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:822984 CAPLUS Full-text
DN 134:11498
TI Heat-developable color photographic material providing high-quality
images

within short development time
IN Yamada, Makoto
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 49 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000321738	A2	20001124	JP 1999-132027	19990512
PRAI	JP 1999-132027		19990512		
OS	MARPAT 134:11498				
GI					



AB The material has a support and a recording layer containing a photosensitive Ag halide, a binder, hydrazine I (Z = carbamoyl, acyl, alkoxy-carbonyl, aryloxy-carbonyl, sulfonyl, sulfamoyl; Q1 = atoms required for forming an unsatd. ring with C), a colorless compound which forms and releases a diffusible dye by coupling reaction with an oxidation product of I, and a dye-providing compound [(DYE)pX]qY (DYE = dye group, dye precursor group; Y = group forming the difference of dye component diffusivity due to reduction of Ag halide latent images; X = direct bond, bonding group; p ≥ 1; q = 1, 2). It showed small dependency on processing temperature and improved raw stock stability.

IT 178332-17-7

RL: TEM (Technical or engineered material use); USES (Uses)
(magenta dye-donating compound; heat-developable color photog.

material
providing high-quality images within short development time)

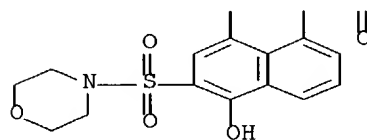
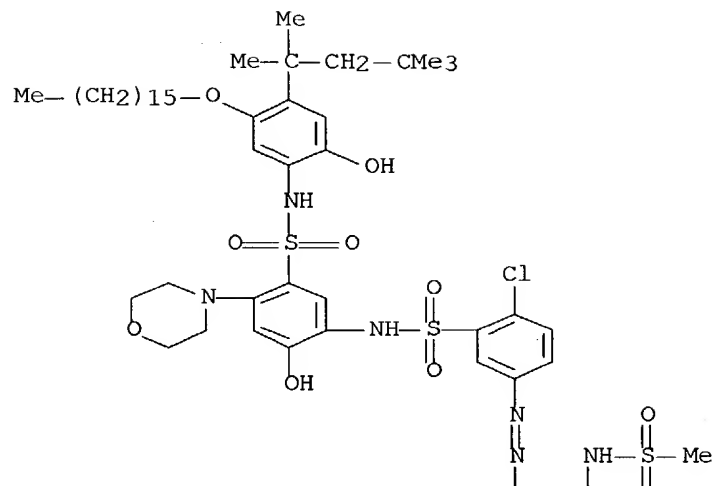
RN 178332-17-7 CAPLUS

CN Benzenesulfonamide, 5-[[[2-chloro-5-[[4-hydroxy-8-
[(methylsulfonyl)amino]-

3-(4-morpholinylsulfonyl)-1-naphthalenyl]azo]phenyl]sulfonyl]amino]-N-

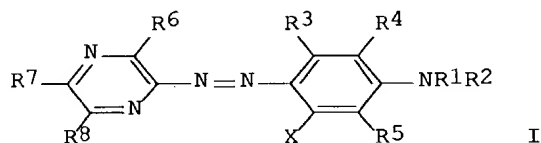
[5-
(hexadecyloxy)-2-hydroxy-4-(1,1,3,3-tetramethylbutyl)phenyl]-4-hydroxy-

2-
(4-morpholinyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 16 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2000:137153 CAPLUS Full-text
 DN 132:187702
 TI Optical recording medium with excellent light-resistance and storage stability
 IN Ueno, Yasunobu; Sato, Tsutomu; Tomura, Tatsuya; Sasa, Noboru; Fukuda, Hiroaki; Azuma, Yasuhiro
 PA Ricoh Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000062321	A2	20000229	JP 1998-247865	19980818
PRAI	JP 1998-247865		19980818		
OS	MARPAT 132:187702				
GI					



AB The title optical recording medium contains at least 1 kind of an azo metal chelate compound comprised of 2- or 3-valent metal (Cr, Fe, Co, Ni or Cu) and azo compound represented by general formula I (X = OH, CO₂H, amido, sulfo, sulfonamide; R₁, R₂ = H, alkyl, phenyl; R₃-R₈ = H, halo, nitro, cyano, OH, carboxy, alkyl, Ph, alkoxy, aryloxy, carbonyl, acyl, alkoxy carbonyl, aryloxy carbonyl, alkenyl, amino). The optical recording medium contain a reflective layer made of Au, Ag, Al, Au alloy, Ag alloy, or Al alloy. The optical recording medium is suitable as a CD-R which is readable by a DVD-R disk system.

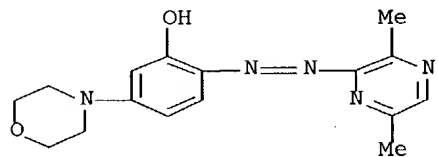
IT **259266-56-3D**, transition metal complex **259266-66-5D**, transition metal complex

RL: DEV (Device component use); USES (Uses)

(azo metal chelate in optical recording medium with excellent light-resistance and storage stability)

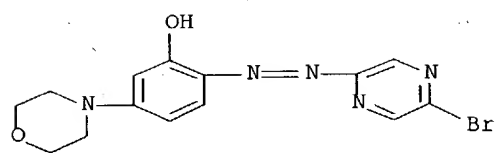
RN 259266-56-3 CAPLUS

CN Phenol, 2-[(3,6-dimethylpyrazinyl)azo]-5-(4-morpholinyl)- (9CI) (CA INDEX NAME)



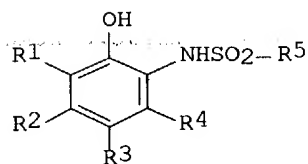
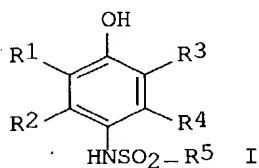
RN 259266-66-5 CAPLUS

CN Phenol, 2-[(5-bromopyrazinyl)azo]-5-(4-morpholinyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 17 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2000:132998 CAPLUS Full-text
 DN 132:173439
 TI Heat development color photographic material containing electron
 transmitting agent
 IN Nakagawa, Hajime
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 48 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000056441	A2	20000225	JP 1998-231114	19980804
	US 6177227	B1	20010123	US 1999-366652	19990804
PRAI	JP 1998-231114	A	19980804		
OS	MARPAT 132:173439				
GI					



AB The title photog. material, comprising a support coated with ≥ 2 Ag halide emulsion layers which are different in color sensitivity from each other and ≥ 1 non-photosensitive layer, contains dye-donating compds. and ≥ 1 diffusive electron-transmitting agent I or II [R1-4 = H, halo, CN or alkyl, aryl, heterocyclic group, alkoxy, aryloxy, alkylthio, arylthio, alkylcarbonyl, arylcarbonyl, alkylsulfonyl, arylsulfonyl, alkylcarbonamide, arylcarbonamide, alkylsulfonamide, arylsulfonamide, alkylcarbonyloxy, arylcarbonyloxy, carbamoyl, alkylcarbamoyl, arylcarbamoyl, alkoxycarbonyl, aryloxycarbonyl, sulfamoyl, alkylsulfamoyl, arylsulfamoyl, ureido or urethane group (these groups have a C number of ≤ 4 or a I/O value of ≥ 1); R5 = alkyl, aryl, heterocyclic group, alkylamino, arylamino, heterocyclic amino] in the emulsion layers or non-photosensitive layer and a compound reactive with

the oxidized product of the electron-transmitting agent in the non-photosensitive layer. An imaging method is also claimed, in which the material is heat-developed to release or form a diffusive dye and the dye is transferred to a dye-fixing element. The material provides high quality color images with improved discrimination upon heat development in a short time and shows good color separation

IT 178332-17-7

RL: DEV (Device component use); USES (Uses)

(dye-donating compound; heat-developable color photog. material containing

diffusive electron-transmitting agent)

RN 178332-17-7 CAPLUS

CN Benzenesulfonamide, 5-[[[2-chloro-5-[[4-hydroxy-8-

[(methylsulfonyl)amino]-

3-(4-morpholinylsulfonyl)-1-naphthalenyl]azo]phenyl]sulfonyl]amino]-N-

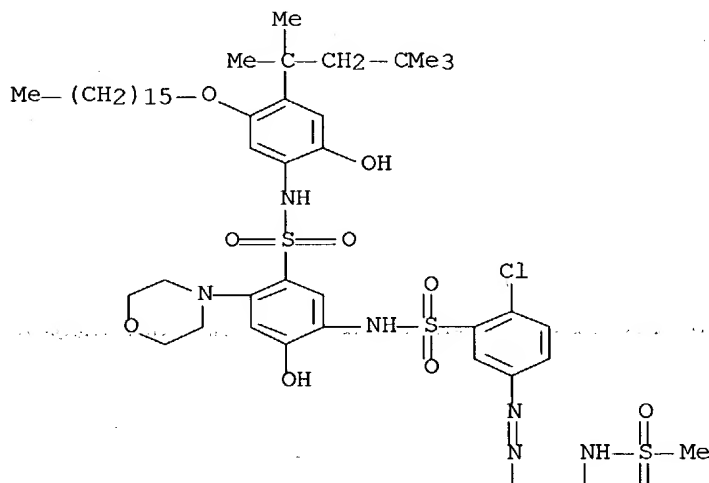
[5-

(hexadecyloxy)-2-hydroxy-4-(1,1,3,3-tetramethylbutyl)phenyl]-4-hydroxy-

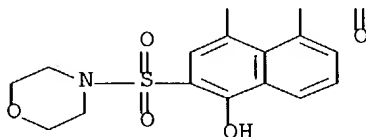
2-

(4-morpholinyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

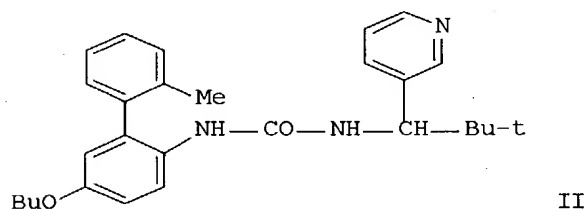
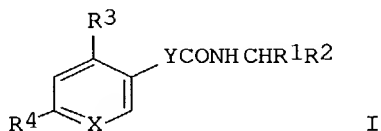


PAGE 2-A



L7 ANSWER 18 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2000:62598 CAPLUS Full-text
 DN 132:107708
 TI Preparation of alkyl arylureas and arylacetamides with cholesterol acyl transferase inhibition effects
 IN Yagisawa, Hiroaki; Naito, Satoru; Takamura, Minoru; Koga, Sadaichiro
 PA Sankyo Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 67 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000026294	A2	20000125	JP 1999-124103	19990430
PRAI	JP 1998-124386		19980507		
OS	MARPAT 132:107708				
GI					



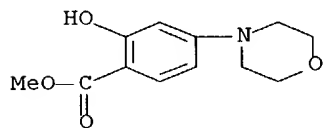
AB Title compds. [I; X = CH, N; Y = methylene and imino; R1 = H, C1-C8alkyl; R2 = 6 member heterocyclic; R3 = C6-C10 aryl; R4 = H, halogen, C1-C8 alkyl, C1-C8 alkoxy, C1-C8 alkylthio, C1-C10 alkylamino; 3-6 member cyclicamino], pharmaceutical acceptable salts are prepared and have cholesterol acyl transferase inhibitory effects which offer as remedy agents or the preventive agents of various diseases which originate in the ACAT inhibitory effect. Thus, the title compound II was prepared

IT **207850-94-0P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of alkyl arylureas and arylacetamides with cholesterol acyl transferase inhibition effects)

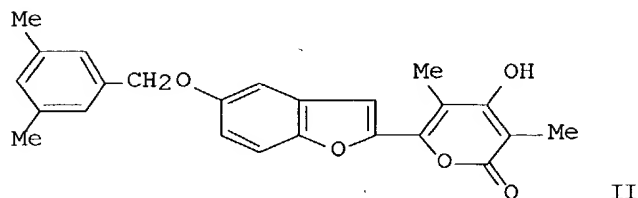
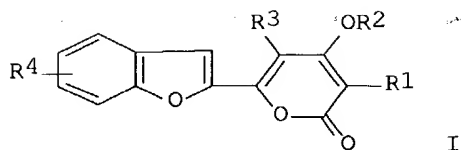
RN 207850-94-0 CAPLUS

CN Benzoic acid, 2-hydroxy-4-(4-morpholinyl)-, methyl ester (9CI) (CA INDEX NAME)



L7 ANSWER 19 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1999:595169 CAPLUS Full-text
 DN 131:228641
 TI Preparation of benzofurylpyrone derivatives and effects on lipid metabolism
 IN Naniwa, Yoshimitsu; Imai, Hiroshi; Ida, Tomohide; Muratani, Emiko; Kitai,
 Kazuo; Sugimoto, Yoshinori; Kosugi, Tomomi; Takeuchi, Akiko; Watanabe, Kunihito; Tomiyama, Takami; Takeuchi, Tomio; Hamada, Masa
 PA Teijin Limited, Japan; Microbial Chemistry Research Foundation
 SO PCT Int. Appl., 176 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9946262	A1	19990916	WO 1999-JP1225	19990312
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2323456	AA	19990916	CA 1999-2323456	19990312
	AU 9932773	A1	19990927	AU 1999-32773	19990312
	AU 756965	B2	20030130		
	BR 9908706	A	20001121	BR 1999-8706	19990312
	EP 1063235	A1	20001227	EP 1999-939191	19990312
	EP 1063235	B1	20040512		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	TR 200002642	T2	20010122	TR 2000-200002642	19990312
	EE 200000504	A	20020215	EE 2000-504	19990312
	NZ 506802	A	20021126	NZ 1999-506802	19990312
	RU 2199536	C2	20030227	RU 2000-125690	19990312
	AT 266659	E	20040515	AT 1999-939191	19990312
	NO 2000004517	A	20000911	NO 2000-4517	20000911
	US 6589984	B1	20030708	US 2000-646005	20000911
	HR 2000000600	A1	20010630	HR 2000-600	20000912
	BG 104761	A	20010831	BG 2000-104761	20000912
	US 2003186976	A1	20031002	US 2003-435746	20030512
PRAI	JP 1998-61356	A	19980312		
	WO 1999-JP1225	W	19990312		
	US 2000-646005	A3	20000911		
OS	MARPAT 131:228641				
GI					



AB Title compds. [I; wherein R1 represents hydrogen or C1-5 alkyl; R2 represents hydrogen, -CO-R5 or SO2R6; R3 represents hydrogen, C1-5 alkyl, etc.; and R4 is a substituent of a definite structure attached to the 4-, 5-, 6- or 7-position of the benzofuran ring] and salts thereof are prepared and tested as remedies for hyperglyceridemia, lipid metabolism improving agents, preventives/remedies for arteriosclerosis, etc. Thus, the title compound II was prepared

IT **70362-07-1P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);

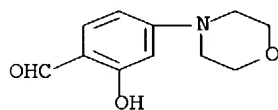
RACT

(Reactant or reagent)

(preparation of benzofurylpyrones and effects on lipid metabolism)

RN 70362-07-1 CAPLUS

CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 20 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:253739 CAPLUS Full-text

DN 130:325088

TI Preparation of acylhydrazone derivatives as Maillard reaction inhibitors and active oxygen scavengers

IN Inoue, Hitoshi; Horigome, Masato; Kinoshita, Nobuhiro; Shibayama, Toshie

PA Nisshin Flour Milling Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 80 pp.

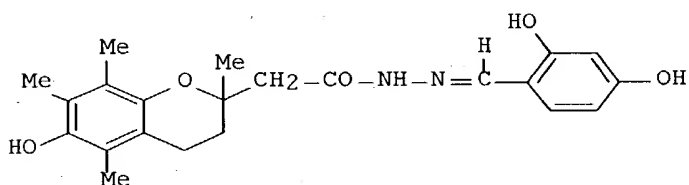
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11106371	A2	19990420	JP 1998-177222	19980624
PRAI	JP 1997-179754		19970704		
OS	MARPAT 130:325088				
GI					



AB The title compds. XWY [X = benzene ring, chroman ring, etc.; Y = (un)substituted Ph, etc.; W = CONHN:CH, etc.] are prepared. The title compound I in vitro showed IC50 of 4.2 μ M against the Maillard reaction.

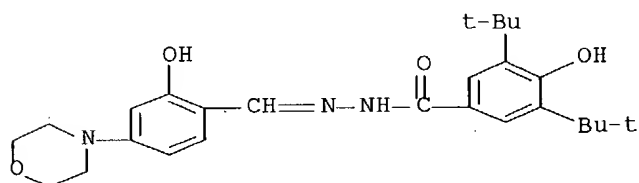
IT 223721-43-5P 223722-00-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of acylhydrazone derivs. as Maillard reaction inhibitors and active oxygen scavengers)

RN 223721-43-5 CAPLUS

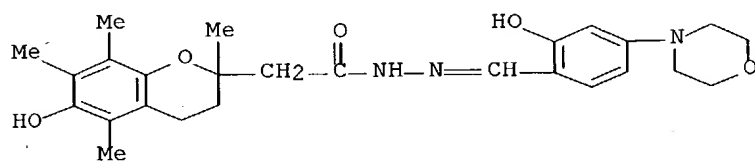
CN Benzoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, [[2-hydroxy-4-(4-morpholinyl)phenyl]methylene]hydrazide (9CI) (CA INDEX NAME)



RN 223722-00-7 CAPLUS

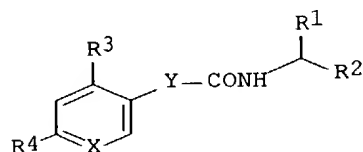
CN 2H-1-Benzopyran-2-acetic acid, 3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-,

[[2-hydroxy-4-(4-morpholinyl)phenyl]methylene]hydrazide (9CI) (CA INDEX NAME)



L7 ANSWER 21 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1998:341545 CAPLUS Full-text
 DN 129:27897
 TI Preparation of arylureas or arylmethylcarbamoyl derivatives as
 acyl-CoA-cholesterol acyltransferase inhibitors
 IN Yanagisawa, Hiroaki; Naito, Satoru; Takamura, Makoto; Koga, Teiichiro
 PA Sankyo Co., Ltd., Japan
 SO PCT Int. Appl., 157 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9821185	A1	19980522	WO 1997-JP4053	19971107
	W: AU, CA, CN, CZ, HU, ID, IL, KR, MX, NO, NZ, RU, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,				
SE	AU 9748850	A1	19980603	AU 1997-48850	19971107
	JP 10182608	A2	19980707	JP 1997-305109	19971107
PRAI	JP 1996-296870		19961108		
	WO 1997-JP4053		19971107		
OS	MARPAT 129:27897				
GI					

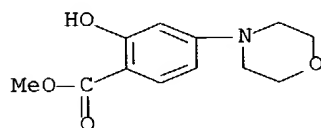


AB The title compds. [I; X = CH or N; Y = CH₂ or imino; R¹ = H or alkyl; R² = N-containing heteroaryl; R³ = (un)substituted aryl; R⁴ = H, halo, alkyl, alkoxy, alkylthio, aryl, aryloxy, arylthio, aralkyl, aralkyloxy, aralkylthio, dialkylamino, cyclic amino, etc.] or pharmacol. acceptable salts thereof are prepared I, possessing acyl-CoA-cholesterol acyltransferase (ACAT) inhibitory activity, are useful for prevention and treatment of hyperlipemia, atherosclerosis, and related diseases. Thus, 2-(2-methylphenyl)-4-phenylbenzoic acid (preparation given) was reacted with 3-(1-amino-2,2-dimethylpropyl)pyridine in the presence of diphenylphosphorylazide and Et₃N to give 64% I (Y = NH, R¹ = tert-Bu, R² = 3-pyridyl, R³ = o-MeC₆H₄, R⁴ = Ph, X = CH) (II), which showed IC₅₀ of 104 ng/mL against ACAT. A hard capsule formulation containing II was also prepared

IT **207850-94-0P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
 RACT (Reactant or reagent) (preparation of arylureas or
 arylmethylcarbamoyl derivs. as acyl-CoA-cholesterol acyltransferase
 inhibitors)

RN 207850-94-0 CAPLUS

CN Benzoic acid, 2-hydroxy-4-(4-morpholinyl)-, methyl ester (9CI) (CA
 INDEX NAME)



RE.CNT 13

THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 22 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1998:228915 CAPLUS Full-text
 DN 128:328711
 TI Method for color imaging by scanning exposure and thermal development
 IN Koide, Tomoyuki
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 35 pp.
 CODEN: JKXXAF

DT Patent
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10097042	A2	19980414	JP 1996-251959	19960924
PRAI	JP 1996-251959		19960924		

AB A color imaging method comprises (1) scanning exposure of a thermal development color photosensitive material possessing on a support, a combination of at least 3 photosensitive layers each of which contains a dye-providing compound releasing or forming a dye having color tone different from those in other layers and having maximum spectral sensitivity in visible region at wavelength different from those in other layers (transmission d. of the photosensitive material being ≥ 0.5 in the visible region at the photosensitive side), by visible beam modulated according to image information and (2) thermal development of the photosensitive material. The scanning pitch by visible beam is smaller than effective diameter of the beam and also overlapping width between lusters (loci of light beams) is from $\geq 5\%$ to $\leq 95\%$ of the effective diameter of the beam. The thermal development color photosensitive material contains a dye-trapping agent. The use of this thermal development color photosensitive material, which is scanning-exposed by visible beam modulated by computer, shortens exposure time and improves image quality and gives color images of excellent sharpness and degree of resolution and high quality on a receptor material.

IT 178332-17-7

RL: TEM (Technical or engineered material use); USES (Uses)

(method for color imaging by scanning exposure using computer-modulated beams and thermal development)

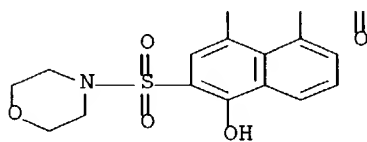
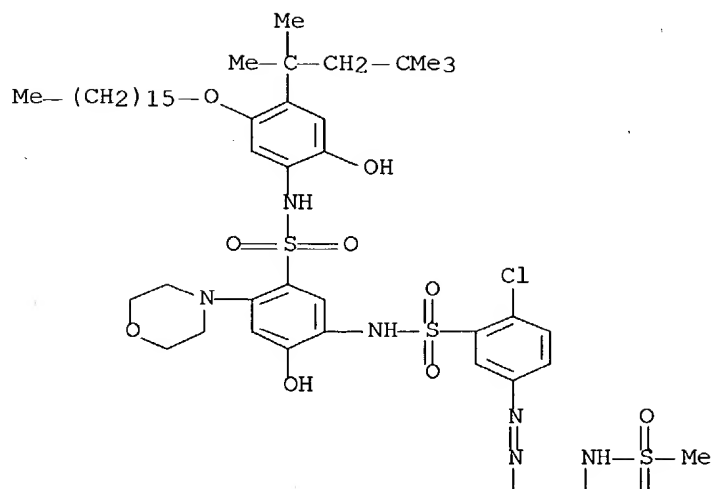
RN 178332-17-7 CAPLUS

CN Benzenesulfonamide, 5-[[[2-chloro-5-[[4-hydroxy-8-[(methylsulfonyl)amino]-

3-(4-morpholinylsulfonyl)-1-naphthalenyl]azo]phenyl]sulfonyl]amino]-N-

[5-(hexadecyloxy)-2-hydroxy-4-(1,1,3,3-tetramethylbutyl)phenyl]-4-hydroxy-

2-(4-morpholinyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 23 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:326342 CAPLUS Full-text

DN 126:299650

TI Thermal processing type color photographic material comprising sensitized

silver chlorobromiodide emulsion

IN Yokogawa, Takuya

PA Fuji Photo Film Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 30 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09061978	A2	19970307	JP 1995-235939	19950823
	JP 3563173	B2	20040908		
	US 5716775	A	19980210	US 1996-649443	19960517
PRAI	JP 1995-119876	A	19950518		
	JP 1995-235939	A	19950823		

AB Claimed photog. material having a light-sensitive emulsion, binder, dye-donor on the support utilizes a silver halide emulsion comprising Ag(Br,Cl,I) grains (AgI ≥ 0.1 mol.% in the internal phase, and AgCl ≥ 10 mol.%) spectrally sensitized prior to chemical sensitization, and chemical sensitized by a decomposed product of nucleic acid. It is not sensitive to applied pressure, in spite of the highly sensitive multistructural silver halide crystals. The dye donor is the redox compound of 2-sulfoamino-derivs. of p-aminophenol or hydroquinone. Thus, the emulsion is suitably applied to a dye transfer color-imaging unit of multilayer photog. material/image receiving sheet utilizing ZnO-chelate alkali-precursor.

IT 178332-17-7

RL: DEV (Device component use); USES (Uses)

(magenta coupler; thermal processing type color photog. material comprising silver chlorobromiodide emulsion sensitized by decomposed nucleic acid)

RN 178332-17-7 CAPLUS

CN Benzenesulfonamide, 5-[[[2-chloro-5-[[4-hydroxy-8-[(methylsulfonyl)amino]-

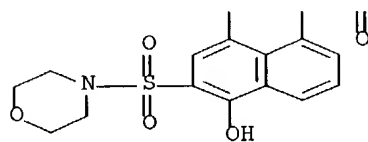
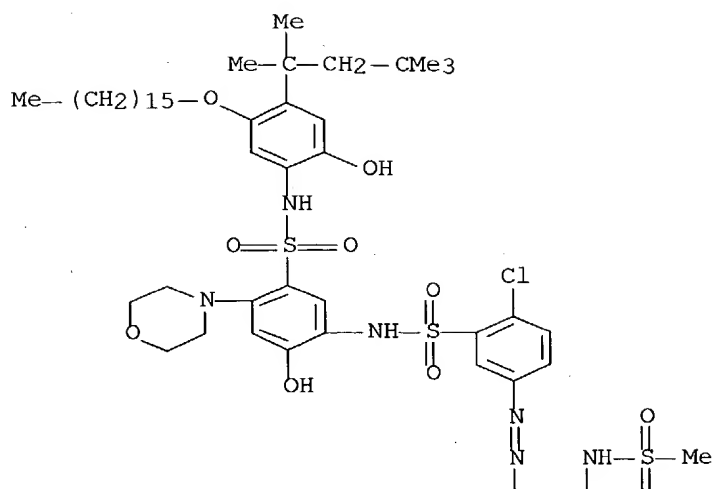
3-(4-morpholinylsulfonyl)-1-naphthalenyl]azo]phenyl]sulfonyl]amino]-N-

[5-

(hexadecyloxy)-2-hydroxy-4-(1,1,3,3-tetramethylbutyl)phenyl]-4-hydroxy-

2-

(4-morpholinyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 24 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:404444 CAPLUS Full-text

DN 125:72030

TI Thermally developable color photosensitive material containing silver halide emulsion

IN Uehara, Yoshiki

PA Fuji Photo Film Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 40 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08062805	A2	19960308	JP 1994-219569	19940823
PRAI	JP 1994-219569		19940823		

AB The material comprises (1) a light-sensitive Ag halide emulsion containing ≥ 0.1 AgI in the grains, (2) a binder, and (3) a dye precursor releasing a diffusible dye corresponding to the Ag development. The dye precursor may comprise [(Dye)pX]qY (Dye = dye moiety; Y = diffusivity-controlling group; X = bond, linking group; $p > 1$; $q = 1, 2$). The material shows high sensitivity and pressure resistance.

IT **178332-17-7**

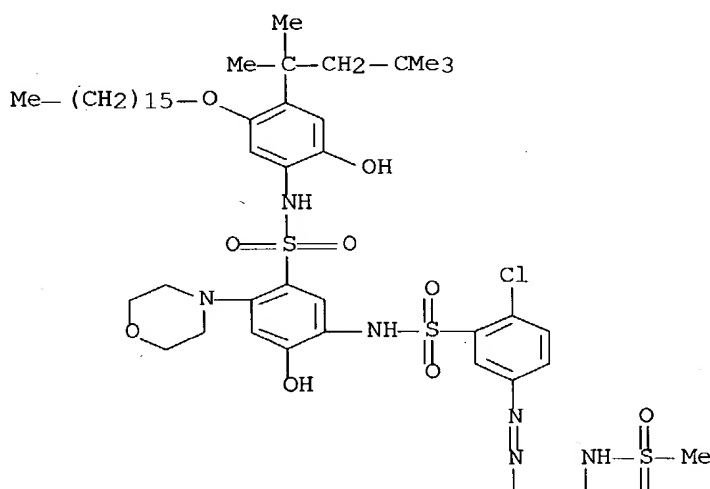
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

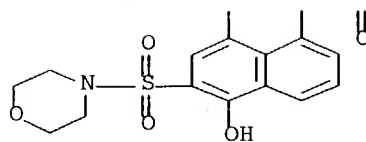
(diffusion dye precursor; thermally developable color photosensitive material containing silver halide emulsion)

RN 178332-17-7 CAPLUS

CN Benzenesulfonamide, 5-[[[2-chloro-5-[[4-hydroxy-8-[(methylsulfonyl)amino]-3-(4-morpholinylsulfonyl)-1-naphthalenyl]azo]phenyl]sulfonyl]amino]-N-[5-(hexadecyloxy)-2-hydroxy-4-(1,1,3,3-tetramethylbutyl)phenyl]-4-hydroxy-2-(4-morpholinyl)- (9CI)
(CA INDEX NAME)

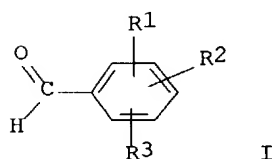
PAGE 1-A





L7 ANSWER 25 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1996:150310 CAPLUS Full-text
 DN 124:206893
 TI Use of benzaldehydes to mark hydrocarbons and method for their
 determination
 IN Kraeh, Claudia; Schloesser, Ulrike; Beck, Karin Heidrun; Mayer, Udo
 PA BASF A.-G., Germany
 SO Ger. Offen., 13 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4424712	A1	19960118	DE 1994-4424712	19940713
	WO 9602613	A1	19960201	WO 1995-EP2558	19950703
	W: AU, BG, BR, BY, CA, CN, CZ, FI, HU, JP, KR, KZ, MX, NO, NZ, PL, RU, SG, SK, UA, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2195019	AA	19960201	CA 1995-2195019	19950703
	AU 9529263	A1	19960216	AU 1995-29263	19950703
	AU 686838	B2	19980212		
	EP 770119	A1	19970502	EP 1995-924960	19950703
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT,				
SE	CN 1155898	A	19970730	CN 1995-194718	19950703
	HU 76687	A2	19971028	HU 1997-62	19950703
	JP 10502693	T2	19980310	JP 1995-504633	19950703
	BR 9508401	A	19980519	BR 1995-8401	19950703
	NO 9700126	A	19970310	NO 1997-126	19970110
	FI 9700108	A	19970312	FI 1997-108	19970110
PRAI	DE 1994-4424712		19940713		
	WO 1995-EP2558		19950703		
OS	MARPAT 124:206893				
GI					



AB Benzaldehydes of formula I (where R1, R2, and R3 are H, hydroxide, C1-15 alkyl, C1-15 alkoxy, cyano, nitro, or a group of formula NR4R5 or COOR6, R4 is a substituted C1-15 alkyl or a rest of formula L-NX1-X2, where L is C2-8 alkylene and X1 and X2 independently C1-8 alkyl or forms with them a heterocyclic rest, and R6 is hydrogen, optionally substituted C1-15 alkyl or L-NX1-X2) are suitable for use as markers for hydrocarbons. The compds. are easily determined

IT **70362-07-1**

RL: ANT (Analyte); MOA (Modifier or additive use); ANST (Analytical

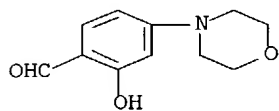
study); USES (Uses)

(marker; use of benzaldehydes to mark hydrocarbons and method for their

determination)

RN 70362-07-1 CAPLUS

CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 26 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1994:545415 CAPLUS Full-text

DN 121:145415

TI Recording material using fluoran compounds

IN Ootsuji, Atsuo; Nakatsuka, Masakatsu; Hasegawa, Kyoharu; Yoshikawa, Kazuyoshi

PA Mitsui Toatsu Chemicals, Japan

SO Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

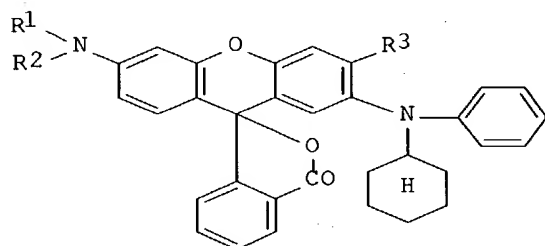
DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05278325	A2	19931026	JP 1992-76570	19920331
	JP 3048274	B2	20000605		
PRAI	JP 1992-76570		19920331		

GI



AB In the title recording material utilizing an electron donating color former and an electron accepting compound to give color by contacting them, the color former employs ≥ 1 fluoran compound I ($R_1, R_2 = C_1-12$ alkyl, C_3-12 alkoxy, C_5-12 cycloalkyl; R and R_2 may joint to form a 5-6-membered heterocycle with N ; $R_3 = H, C_1-4$ alkyl). The recording material shows both good material and image storage stability.

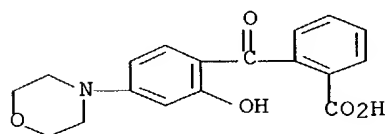
IT 55165-07-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, electron donating color former from, for recording material)

RN 55165-07-6 CAPLUS

CN Benzoic acid, 2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



L7 ANSWER 27 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1994:149009 CAPLUS Full-text

DN 120:149009

TI Fluoran compound for recording material

IN Ootsuji, Atsuo; Nakatsuka, Masakatsu

PA Mitsui Toatsu Chemicals, Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

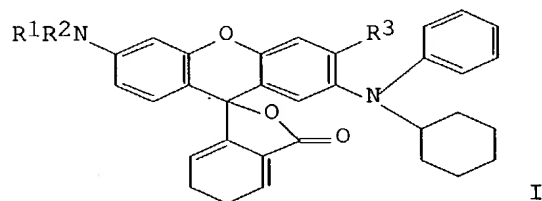
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05247051	A2	19930924	JP 1992-324346	19921203
	JP 3137473	B2	20010219		
PRAI	JP 1991-327411	A1	19911211		
OS	MARPAT 120:149009				
GI					



AB The fluoran compound consists of I (R1-2 = C1-12 alkyl, C3-12 alkoxyalkyl, C5-12 cycloalkyl, NR1R2 may form 5- or 6-membered heterocyclic group; R3 = C1-4 alkyl). The fluoran compound is useful for thermal or pressure-sensitive recording. The fluoran compound shows good red- or green-coloring.

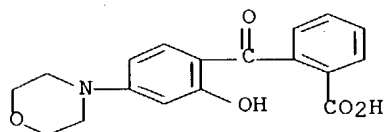
IT 55165-07-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with cyclohexyldiphenylamine derivs. in preparation of fluoran compds.)

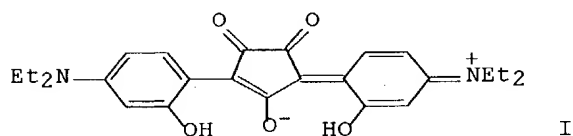
RN 55165-07-6 CAPLUS

CN Benzoic acid, 2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



L7 ANSWER 28 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1994:10535 CAPLUS Full-text
 DN 120:10535
 TI Infrared heating-type thermal transfer printing sheets
 IN Murata, Jukichi; Ozawa, Tetsuo; Kawana, Makoto; Urano, Toshoshi
 PA Mitsubishi Chemical Industries Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05169839	A2	19930709	JP 1991-339070	19911220
PRAI	JP 1991-339070		19911220		
OS	MARPAT 120:10535				
GI					



AB Transfer printing inks contain dyes and IR absorbers such as chroconium compds. Thus, a magenta ink contained I 2, 1,1,2-tricyano-2-(p-ethylbutylaminophenyl)ethylene 8, cellulose acetate (L-30) 10, and MEK 80 g.

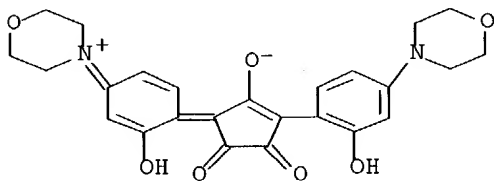
IT 104055-69-8

RL: USES (Uses)

(IR absorbers, in thermal transfer printing inks)

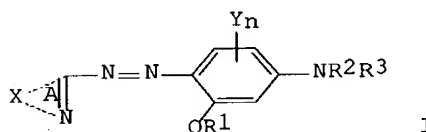
RN 104055-69-8 CAPLUS

CN Morpholinium, 4-[3-hydroxy-4-[2-hydroxy-3-[2-hydroxy-4-(4-morpholinyl)phenyl]-4,5-dioxo-2-cyclopenten-1-ylidene]-2,5-cyclohexadien-1-ylidene]-, inner salt (9CI) (CA INDEX NAME)



L7 ANSWER 29 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1991:585569 CAPLUS Full-text
 DN 115:185569
 TI Thermal-transfer recording materials and image formation therewith
 IN Komamura, Tawara; Miura, Akio; Ikehata, Yoriko
 PA Konica Co., Japan
 SO Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03114892	A2	19910516	JP 1989-252231	19890929
	JP 2893274	B2	19990517		
PRAI	JP 1989-252231		19890929		
OS	MARPAT 115:185569				
GI					



AB The title materials providing lightfast images with high color d. on chelating agent-treated receptors contain dyes I [X = group atoms needed for forming (un)substituted 5- or 6-membered ring with or without condensed ring; Y = halogen, alkyl, alkoxy; n = 0-2; R1 = H, alkyl; R2, R3 = H, alkyl, aryl, or R2R3 = 5- or 6-membered ring member]. An ink from 10 g I (A = 2-pyridyl; Y = R1 = H; R2 = R3 = Et), 15 g poly(vinyl butyral), and 200 mL MEK was coated on a PET film to 1.0 g/cm² to give a thermal transfer medium providing magenta images with higher color d. and lightfastness than a control using 2-(2-hydroxyphenylazo)-4-methoxy-1-naphthol as the dye.

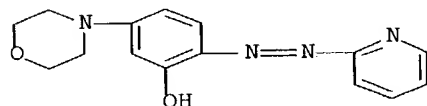
IT 136789-83-8

RL: USES (Uses)

(dye, lightfast, for thermal transfer printing inks)

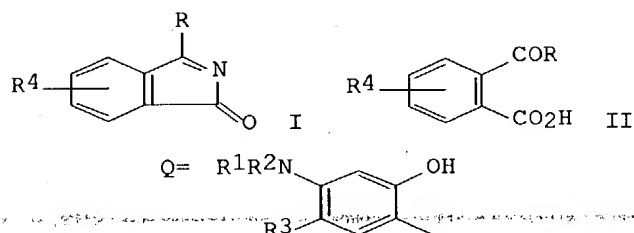
RN 136789-83-8 CAPLUS

CN Phenol, 5-(4-morpholinyl)-2-(2-pyridinylazo)- (9CI) (CA INDEX NAME)



L7 ANSWER 30 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1990:55599 CAPLUS Full-text
 DN 112:55599
 TI Preparation and hydrolysis of 3-(4-amino-2-hydroxyphenyl)-1-oxo-
 isoindolenines
 IN Kranz, Joachim; Landmann, Bernd; Mayer, Udo
 PA BASF A.-G., Fed. Rep. Ger.
 SO Ger. Offen., 7 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3800577	A1	19890720	DE 1988-3800577	19880112
	EP 327792	A2	19890816	EP 1989-100028	19890103
	EP 327792	A3	19891004		
	EP 327792	B1	19931222		
	R: CH, DE, FR, GB, IT, LI				
	US 4904798	A	19900227	US 1989-295462	19890110
	JP 01213261	A2	19890828	JP 1989-2964	19890111
PRAI	DE 1988-3800577		19880112		
OS	CASREACT 112:55599; MARPAT 112:55599				
GI					



AB The title compds. [I; R = Q; R¹ = H, (un)substituted C₁-12 alkyl, C₅-8 cycloalkyl, Ph; R² = H, (un)substituted C₁-6 alkyl; NR¹R² = morpholino, pyrrolidino, piperdino; R³ = H, Me; R⁴ = H, Cl, C₁-4 alkyl, NO₂] were prepared by condensation of 3-aminophenols QH with 3-amino-1-oxo-isoindolenines I (R = NH₂, R⁴ as above) in the presence of acids, and hydrolyzed to II (R and R⁴ as defined). Thus, 4,3-Me(EtNH)C₆H₃OH was heated 1 h at 120° with I.HCl (R = NH₂, R⁴ = H) in DMF to give I (R = Q, R¹ = Et, R² = R⁴ = H, R³ = Me) which was refluxed 5 h in 20% aqueous KOH to give II (R, R¹, R², R³, R⁴ unchanged).

IT **124810-41-9P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);

RACT

(Reactant or reagent)

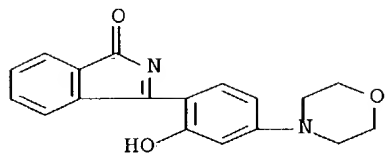
(preparation and hydrolysis of)

RN 124810-41-9 CAPLUS

CN 1H-Isoindol-1-one, 3-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA

INDEX

NAME)

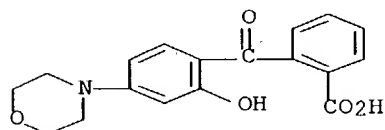


IT **55165-07-6P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

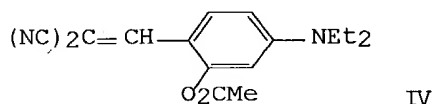
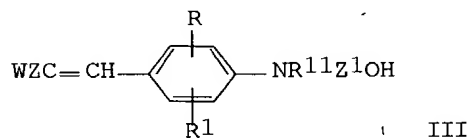
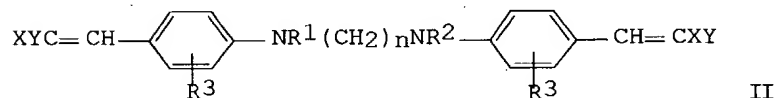
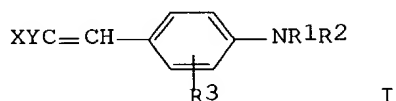
RN 55165-07-6 CAPLUS

CN Benzoic acid, 2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX
NAME)



L7 ANSWER 31 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1989:644338 CAPLUS Full-text
 DN 111:244338
 TI Styryl compounds, process for preparing the same and photoresist compositions comprising the same
 IN Yamamoto, Takanori; Furuta, Akihiro; Konishi, Shinji; Hioki, Takeshi; Hanawa, Ryotaro; Tomioka, Jun
 PA Sumitomo Chemical Co., Ltd., Japan
 SO Eur. Pat. Appl., 25 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 323631	A2	19890712	EP 1988-121773	19881228
	EP 323631	A3	19891213		
	EP 323631	B1	19930811		
	R: BE, DE, FR, GB, IT, NL				
	JP 01172948	A2	19890707	JP 1987-332110	19871228
	JP 02028142	A2	19900130	JP 1988-177752	19880715
	JP 2819562	B2	19981030		
	US 5218136	A	19930608	US 1988-290264	19881227
	EP 510726	A1	19921028	EP 1992-110557	19881228
	EP 510726	B1	19960313		
	R: BE, DE, FR, GB, IT, NL				
	CA 1329599	A1	19940517	CA 1988-587099	19881228
	KR 139093	B1	19980501	KR 1988-17667	19881228
	SG 77100	A1	20001219	SG 1996-1577	19881228
	US 5354644	A	19941011	US 1992-937684	19920901
PRAI	JP 1987-332110	A	19871228		
	JP 1988-177752	A	19880715		
	US 1988-290264	A3	19881227		
OS	MARPAT 111:244338				
GI					



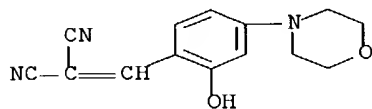
AB Photoresist compns. for forming fine patterns on a substrate having high reflectance without causing halation or notching contain a styryl compound of the formula I, II, or III (R1, R2 = H, (un)substituted alkyl, (un)substituted alkenyl, (un)substituted aralkyl, or together may form a ring; R3 = OH, CO2R4, or OSi(R4)3 where R4 = alkyl; X, Y = CN, CO2R5, CONR6R7, (un)substituted p-nitrobenzyl, (un)substituted benzoyl, or 2-benzimidazolyl where R5 = alkyl and R6, R7 = H, Ph, or (un)substituted lower alkyl; R8 = H, (un)substituted C1-10 alkyl, alkenyl, or aralkyl; R9, R10 = H, (un)substituted lower alkyl, (un)substituted lower alkoxy, amido, or halogen; W, Z = an electron-attracting group; Z1 = substituted C1-10-alkylene) as a light absorber which neither sublimes during prebaking nor ppts. during storage. The resulting photoresist is stable toward the prebaking of the substrate and suffers from less deterioration of sensitivity caused by the addition of the light absorber. Thus, the photoresist PF-6200 containing IV was tested to show excellent antihalation effect, no sublimation upon prebaking, and excellent sensitivity.

IT **124079-97-6P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and use of, as light absorber in photoresists)

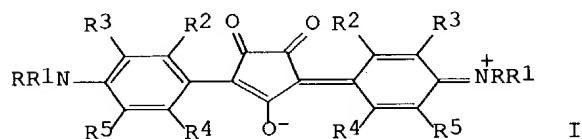
RN 124079-97-6 CAPLUS

CN Propanedinitrile, [[2-hydroxy-4-(4-morpholinyl)phenyl]methylene]- (9CI)
(CA INDEX NAME)



L7 ANSWER 32 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1986:524354 CAPLUS Full-text
 DN 105:124354
 TI Liquid crystal compositions
 IN Miura, Konoe; Ozawa, Tetsuo; Iwanami, Junko
 PA Mitsubishi Chemical Industries Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61031490	A2	19860213	JP 1984-153743	19840724
PRAI	JP 1984-153743		19840724		
GI					



AB The title compns. contain croconium compds. [I; R, R1 = H, (substituted) alkyl, tetrahydrofurfuryl, or together may form an N-containing ring; R2-R5 = H, (substituted) alkyl, alkoxy, OH, halo; R2R3 and R4R5 may form an aromatic ring; and RR3 or RR5 may form a N-containing ring]. These compds. are optically stable and have excellent solubility in liquid crystals. Thus, treating croconic acid in BuOH with 2-methyl-5-hydroxy-N-ethylaniline in 1,2-C6H4Cl2 under reflux for 30 min gave I (R, R2, R5 = H; R1 = Et; R3 = Me; R4 = OH) (II). A display device prepared by using a cyanooctylbiphenyl liquid crystal composition containing 0.5% II was irradiated by a GaAlAs semiconductor laser beam to give black images with excellent contrast.

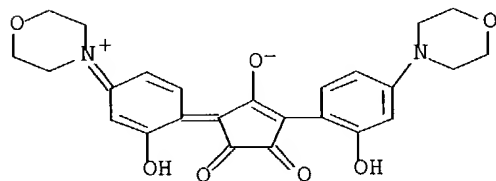
IT **104055-69-8**

RL: USES (Uses)

(liquid crystal compns. containing, for laser-recordable displays)

RN 104055-69-8 CAPLUS

CN Morpholinium, 4-[3-hydroxy-4-[2-hydroxy-3-[2-hydroxy-4-(4-morpholinyl)phenyl]-4,5-dioxo-2-cyclopenten-1-ylidene]-2,5-cyclohexadien-1-ylidene]-, inner salt (9CI) (CA INDEX NAME)



L7 ANSWER 33 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1985:525013 CAPLUS Full-text

DN 103:125013

TI Fluoran color formers

IN Mayer, Udo; Oberlinner, Andreas

PA BASF A.-G. , Fed. Rep. Ger.

SO Ger. Offen., 27 pp.

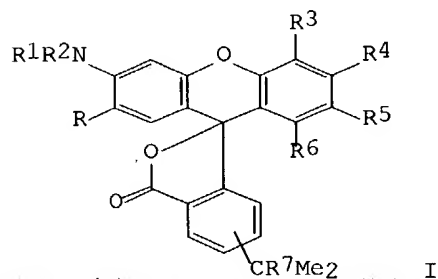
CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3337387	A1	19850425	DE 1983-3337387	19831014
	EP 138177	A2	19850424	EP 1984-112011	19841006
	EP 138177	A3	19850605		
	EP 138177	B1	19880107		
	R: CH, DE, FR, GB, IT, LI				
	JP 60101152	A2	19850605	JP 1984-212744	19841012
	US 4603202	A	19860729	US 1984-660128	19841012
PRAI	DE 1983-3337387		19831014		
GI					



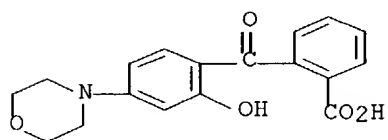
AB Fluoran color formers with good solubility in microencapsulation solvents and reduced migration in support materials are represented by general structure I, where R = H or Me; R1 = H or (un)substituted alkyl; R2 = H, (un)substituted alkyl, cycloalkyl, or (un)substituted Ph, or R1R2N = 5- or 6-membered heterocycle; R3 and R4 = H, alkyl, alkoxy, or halogen; R5 = H, halogen, alkyl, etc.; R6 = H, alkyl, or halogen; and R7 = C1-5 alkyl. I are useful in heat- or pressure-sensitive recording systems and produce yellow, orange, red, blue, olive, or black colors when in contact with electron acceptors. Thus, treatment of 4-tert-butyl-2-(2-hydroxy-5-methylbenzoyl)benzoic acid [98233-18-2] in CHCl₃ with POCl₃ at room temperature and then with 3-(ethylamino)-4-methylphenol [120-37-6] at reflux gave 5'(6')-tert-butyl-3-(ethylamino)-2,7-dimethylfluoran [98181-33-0], which produced deep orange copies when microencapsulated and used in copying paper. Numerous other I were similarly prepared

IT **98181-30-7**

RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation reaction of, with naphthol)

RN 98181-30-7 CAPLUS

CN Benzoic acid, 4(or 5)-(1,1-dimethylethyl)-2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)

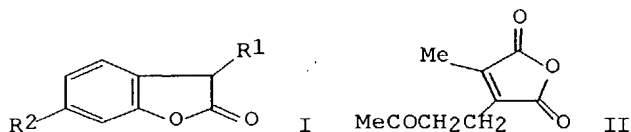


D1-Bu-t

L7 ANSWER 34 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1983:539751 CAPLUS Full-text
 DN 99:139751
 TI Furans
 IN Wenk, Paul; Breitenstein, Werner; Baumann, Marcus
 PA Ciba-Geigy A.-G. , Switz.
 SO Eur. Pat. Appl., 103 pp.
 CODEN: EPXXDW
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 78241	A2	19830504	EP 1982-810439	19821022
	EP 78241	A3	19840328		
	R: AT, BE, CH, DE, FR, IT, LI, LU, NL, SE				
	US 4426380	A	19840117	US 1982-435595	19821021
	FI 8203640	A	19830429	FI 1982-3640	19821025
	GB 2110210	A1	19830615	GB 1982-30351	19821025
	GB 2110210	B2	19850703		
	ES 516842	A1	19840116	ES 1982-516842	19821026
	CA 1199635	A1	19860121	CA 1982-414197	19821026
	DK 8204759	A	19830429	DK 1982-4759	19821027
	NO 8203585	A	19830429	NO 1982-3585	19821027
	AU 8289823	A1	19830505	AU 1982-89823	19821027
	ZA 8207844	A	19830629	ZA 1982-7844	19821027
	DD 204699	A5	19831207	DD 1982-244314	19821027
	HU 29609	O	19840228	HU 1982-3447	19821027
	JP 58126882	A2	19830728	JP 1982-191737	19821028
	US 4451462	A	19840529	US 1983-542334	19831017
	ES 526890	A1	19851001	ES 1983-526890	19831028
	ES 526892	A1	19851001	ES 1983-526892	19831028
	ES 526891	A1	19860201	ES 1983-526891	19831028
PRAI	CH 1981-6882		19811028		
	US 1982-435595		19821021		

GI



AB Benzofuranones I (R1 = H, aliphatic group; R2 = amino disubstituted with hydrocarbonydiyl; benzo ring may be addnl. substituted) and their salts and(or) isomers, useful as inflammation inhibitors, analgesics, and sunscreens for skin (no data), were prepared Imidazo[1,2-a]pyridin-2(3H)-one hydrochloride in aqueous NaOH added to maleic acid to give 3-(1,2-dicarboxyethyl)imidazo[1,2-a]pyridin-2(3H)-one. The HCl salt of

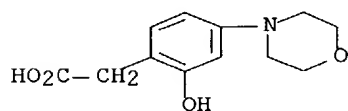
this added to MeCOCH:CH₂ and the product was decarboxylated and hydrolyzed to give maleic anhydride II. This reacted with morpholinium benzoate in refluxing C₆H₆ in 48 h with H₂O separation to give I (R₁ = Me, R₂ = morpholino).

IT **87203-11-0**

RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclization of)

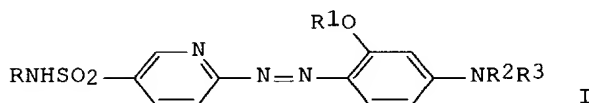
RN 87203-11-0 CAPLUS

CN Benzeneacetic acid, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 35 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1983:81473 CAPLUS Full-text
 DN 98:81473
 TI Photographic products and processes employing novel nondiffusible
 pyridylazo(dialkylamino)phenol magenta dye-releasing compounds and
 precursors thereof
 IN Anderson, Richard B.; Kalenda, Norman W.
 PA Eastman Kodak Co., USA
 SO U.S., 18 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4357410	A	19821102	US 1981-282611	19810713
	US 4367174	A	19830104	US 1982-355030	19820305
	US 4368249	A	19830111	US 1982-355001	19820305
	CA 1169050	A1	19840612	CA 1982-398466	19820316
	EP 70481	A1	19830126	EP 1982-106190	19820712
	EP 70481	B1	19850410		
	R: DE, FR, GB				
	JP 58017436	A2	19830201	JP 1982-120720	19820713
PRAI	US 1981-282611		19810713		
GI					



AB A nondiffusible compound for diffusion-transfer photog. which releases a
 pyridylazo(dialkylamino)phenol magenta dye moiety or its precursor
 comprises I (R = H, hydrolyzable moiety; R1 = H, a hydrolyzable moiety,
 or a ballasted carrier moiety; R2, R3 = H, a ballasted carrier moiety,
 C1-6 alkyl, or together with N form a 5- or 6-membered heterocyclic
 ring). Thus, a receiving element consisting of a poly(ethylene
 terephthalate) support containing a Ni sulfate hexahydrate 0.58-gelatin
 1.08 g/m² metal complexing layer and a poly(4-vinylpyridine)-gelatin
 mordant layer (each at 2.15 g/m²) was immersed in an alkaline solution
 of I (R = H; R1 = H; R2, R3 = Me), washed, placed in pH 7 buffer, and
 dried to show λ_{\max} = 565 and 530 nm (at min. d.) and $\lambda_{1/2}$ (a center of
 the wavelength range at half the maximum d.) = 536 nm.

IT **84355-84-0 84389-28-6**

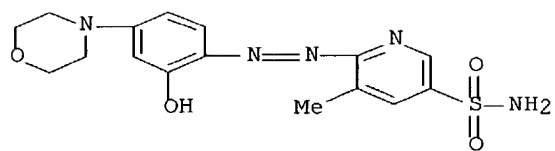
RL: PRP (Properties)

(spectral properties of, photog. applications in relation to)

RN 84355-84-0 CAPLUS

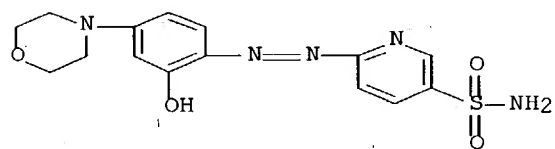
CN 3-Pyridinesulfonamide, 6-[[2-hydroxy-4-(4-morpholinyl)phenyl]azo]-5-
 methyl-

(9CI) (CA INDEX NAME)



RN 84389-28-6 CAPLUS

CN 3-Pyridinesulfonamide, 6-[[2-hydroxy-4-(4-morpholinyl)phenyl]azo]- (9CI)
(CA INDEX NAME)



L7 ANSWER 36 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1983:73839 CAPLUS Full-text

DN 98:73839

TI Chromogenic fluoran compounds

IN Dixon, Leonard Fox

PA Holliday Dyes and Chemicals Ltd., UK

SO Brit. UK Pat. Appl., 6 pp.

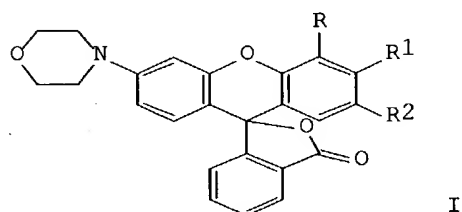
CODEN: BAXXDU

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2097013	A	19821027	GB 1982-10955	19820415
PRAI	GB 1981-12191		19810416		
GI					



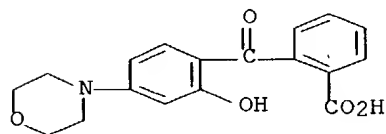
AB Chromogenic fluorans (I) for pressure-sensitive record materials are prepared, where R = H or lower alkyl; R1 and R2 independently represent H, alkyl, cycloalkyl, aralkyl, aryl, OH, alkoxy, cycloalkoxy, aralkoxy, or aryloxy; R1 or R2 can be an optionally substituted amino group; and RR1 or R1R2 represents a fused ring. In contact with acidic materials I give red, orange, green, purple, and black colors. Thus, reaction of 2'-hydroxy-4'-morpholinobenzophenone-2-carboxylic acid [55165-07-6] with 4-(acetylamino)phenol [103-90-2] in H2SO4 at 50° followed by deacetylation gave almost colorless crystalline I (R = R1 = H, R2 = NH2) (II) [84428-98-8] (after recrystn. from toluene). A toluene solution of II gave a purple black color to acid clay-coated paper. Ten other I were similarly prepared

IT 55165-07-6

RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation reaction of, with aminophenols)

RN 55165-07-6 CAPLUS

CN Benzoic acid, 2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



L7 ANSWER 37 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1981:587261 CAPLUS Full-text

DN 95:187261

TI Coumarin compounds

IN Hagen, Helmut; Kohler, Rolf Dieter

PA BASF A.-G. , Fed. Rep. Ger.

SO Ger. Offen., 17 pp.

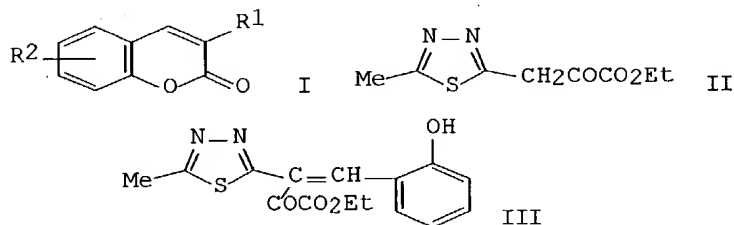
CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2950291	A1	19810619	DE 1979-2950291	19791214
	EP 30703	A1	19810624	EP 1980-107746	19801209
	EP 30703	B1	19840321		
	R: BE, CH, DE, FR, GB, NL				
PRAI	DE 1979-2950291		19791214		
GI					



AB Coumarins I (R1 = heterocyclyl, R2 = H, aliphatic, cyclo-, araliph., aromatic, OR3, NR32, NO2, halo, R3 independently = aliphatic, cyclo-8 araliph., aromatic, NR32 = heterocyclyl) were prepared by a simpler and more economical method than previously and in better yield and purity. I was fluorescent dyes and optical brighteners (no data) and intermediates for dyes, pesticides, and pharmaceuticals. Stirring a mixture of pyruvate II, 2-HOC6H4CHO, and ZnCl2 2 h at 100° gave 60% condensation product III which was cyclized with NaOMe in Me glycol in 1 h at 130° to give 85% coumarin I (R1 = 5-methyl-1,3,4-thiadiazol-2-yl, R2 = H).

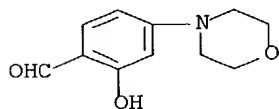
IT 70362-07-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(cyclization of, with thiadiazolpyruvate ester enolate)

RN 70362-07-1 CAPLUS

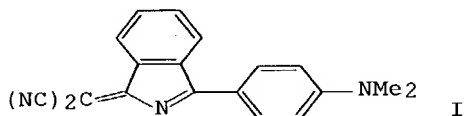
CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 38 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1981:123114 CAPLUS Full-text
 DN 94:123114
 TI Disperse dyes and their use
 IN Neumann, Peter; Elser, Wolfgang; Bock, Gustav; Kermer, Wolf Dieter
 PA BASF A.-G., Fed. Rep. Ger.
 SO Ger. Offen., 47 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2912428	A1	19801009	DE 1979-2912428	19790329
	US 4373102	A	19830208	US 1980-128156	19800307
	EP 17132	A1	19801015	EP 1980-101558	19800325
	EP 17132	B1	19811014		
	R: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
	JP 55131064	A2	19801011	JP 1980-39143	19800328
	JP 63060072	B4	19881122		
PRAI	DE 1979-2912428		19790329		

GI

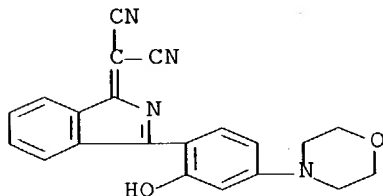


AB Substituted 1-(cyanomethylene)-3-(4-aminophenyl)-1H-isoindole derivs. are prepared and used to dye polyester fibers and polystyrene [9003-53-6] fast blue to violet shades. Thus, 3-(dicyanomethylene)-1-iminoisoindoline [43002-19-3] was heated with N,N-dimethylaniline [121-69-7] in Ac2O containing H2SO4 to give I [76751-73-0], reddish blue on polyester fibers.

IT **76751-49-0**
 RL: TEM (Technical or engineered material use); USES (Uses)
 (dye, for polyester fibers, preparation of)

RN 76751-49-0 CAPLUS

CN Propanedinitrile, [3-[2-hydroxy-4-(4-morpholinyl)phenyl]-1H-isoindol-1-ylidene]- (9CI) (CA INDEX NAME)



L7 ANSWER 39 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1980:595485 CAPLUS Full-text
DN 93:195485
TI Pressure-sensitive copying paper
IN Miyazawa, Yoshiei; Motohashi, Katsuichi; Harada, Etsuo; Kato, Hajime
PA Hodogaya Chemical Co., Ltd., Japan; Fuji Photo Film Co., Ltd.
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF

DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 55044830	A2	19800329	JP 1978-117983	19780927
PRAI	JP 1978-117983		19780927		

GI For diagram(s), see printed CA Issue.

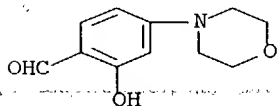
AB Pressure-sensitive copying materials contain a 7-substituted spiropyran derivative I (R = H, lower alkyl, Ph; A = benzene or naphthalene ring; R1 = pyrrolidinyl, piperidino, morpholino; R may form 5- or 6-membered ring by bonding with the C atom at 3-position) as the dye precursor. Thus, II was microencapsulated by using a conventional method and the resultant microcapsule dispersion was coated on a paper support to give a pressure-sensitive sheet which gave high-optical-d. images having good light fastness when it is used with an acidic claytype color developer sheet.

IT 70362-07-1

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dimethylnaphthopyrylium chloride ferric chloride)

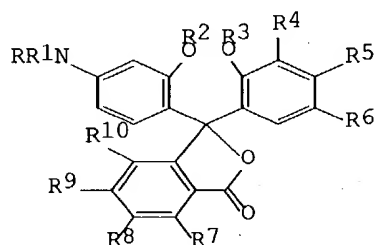
RN 70362-07-1 CAPLUS

CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 40 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1979:620332 CAPLUS Full-text
 DN 91:220332
 TI Electrorecording paper
 IN Iwata, Susumu
 PA Ricoh Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 54104352	A2	19790816	JP 1978-9914	19780202
PRAI	JP 1978-9914		19780202		
GI					



I

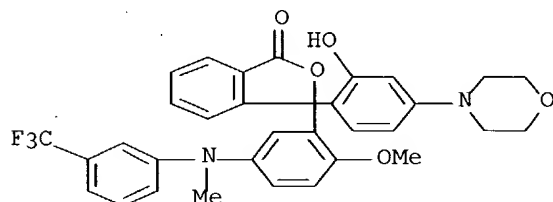
AB Lactones of the general formula I [R,R1 = H, lower alkyl, aralkyl, Ph, -CH2CH2CN, -CH2CH2OH, -CH2CH2X (X = halogen); RR1 in combination may form (CH2)4, (CH2)5, (CH2)2O(CH2)2; R2,R3 = H, lower alkyl, aralkyl, acyl, Ph; R4,R5,R6 = H, lower alkyl, lower alkoxy, halo, halomethyl, NO2, amino; R7,R8,R9,R10 = H, lower alkyl, lower alkoxy, halo; R8R9 in combination may complete a naphthalene ring] are used as the color formers for electrorecording materials which are based on the color formation by joule heat. The color formers give images having excellent light fastness. Thus, an Al-laminated paper support was coated with a composition consisting of 3-(4-diethylamino-2-hydroxyphenyl)-3-(5-anilino-4-methyl-2-methoxyphenyl)phthalide 3, ZnO 30, Bisphenol A 6, a 10% poly(vinyl alc.) solution 50, a styrene-acrylic acid copolymer emulsion (20% solids) 5, and H2O 6 g to give an electrorecording paper. The recording was carried out at 120 v, 180 rpm-210 mm, 4 lines/mm, and 10 g/cm2 to form images with optical d. of 0.9. The images showed good light fastness.

IT 68882-50-8

RL: USES (Uses) (electrorecording sheet containing)

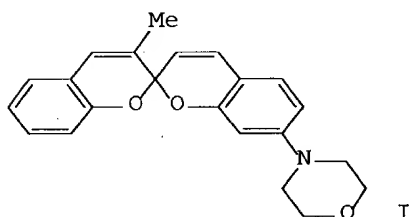
RN 68882-50-8 CAPLUS

CN 1(3H)-Isobenzofuranone, 3-[2-hydroxy-4-(4-morpholinyl)phenyl]-3-[2-methoxy-5-[methyl[3-(trifluoromethyl)phenyl]amino]phenyl]- (9CI) (CA INDEX NAME)



L7 ANSWER 41 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1979:213274 CAPLUS Full-text
 DN 90:213274
 TI Leuco dyes for pressure-sensitive copying paper
 IN Baumann, Hans; Oberlinner, Andreas
 PA BASF A.-G., Fed. Rep. Ger.
 SO Ger. Offen., 22 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2737207	A1	19790301	DE 1977-2737207	19770818
	US 4161589	A	19790717	US 1978-932015	19780808
	EP 900	A1	19790307	EP 1978-100629	19780809
	EP 900	B1	19810114		
	R: CH, DE, FR, GB				
	JP 54041880	A2	19790403	JP 1978-100125	19780818
PRAI	DE 1977-2737207		19770818		
GI					



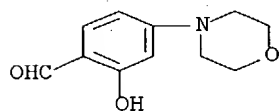
AB Spirodipyrans with a fused-on Ph or 2,1-naphthalene ring and N-morpholino (or N-isoindolinyl) as substituent, microencapsulated as practically colorless oily solution, and coated on paper yield red-violet to blue copies in contact with electron acceptors but are less liable to develop color in non-acid areas than precursors containing a NET₂ group in place of the morpholine. Thus, refluxing 2,3-dimethylbenzopyrylium trichlorozincate 165 parts with 4-N-morpholinosalicylaldehyde 105 parts in MeOH 900 parts resulted in a crystalline dye which was decolorized by stirring in a mixture of 25% aqueous NH₄OH 500 and PhMe 1000 parts. From the PhMe phase 3'-methyl-7-N-morpholino-2,2'-spirodi(2H-1-benzopyran) (I) 130 parts was recovered.

IT 70362-07-1

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with dimethylbenzopyryliumtrichlorozincate and related compds.)

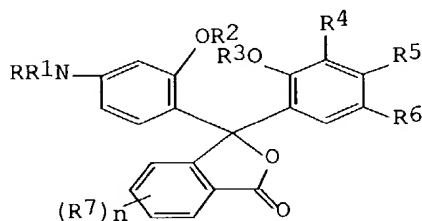
RN 70362-07-1 CAPLUS

CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 42 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1979:160127 CAPLUS Full-text
 DN 90:160127
 TI Thermal recording materials
 IN Iwata, Susumu; Kubo, Keiji; Miyajima, Shigeru; Tamura, Hiroshi
 PA Ricoh Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 53100838	A2	19780902	JP 1977-14963	19770216
	JP 57052918	B4	19821110		
PRAI	JP 1977-14963		19770216		
GI					



I

AB Heat-sensitive recording materials contain (1) a lactone of the general formula I [R, R1 = H, lower alkyl, aralkyl, Ph, substituted Ph, cyanoethyl, HOCH2CH2, β -haloethyl; RR1 in combination may form (CH2)4, (CH2)5, (CH2)2O(CH2)2; R2, R3 = H, lower alkyl, aralkyl, amyl, Ph; ≥ 2 of R2 and R3 is H; R4, R5, R6 = H, lower alkyl, lower alkoxy, halogen, halogenated Me, NO2, NH2, substituted amino; R7 = lower alkyl, lower alkoxy, halogen; n = 0-4], an acidic substance, a waxy substance, and an alkaline substance. The thermal recording materials exhibit good resistance toward pressure-induced blemishes, good shelf life, and give high d. clear images. Thus, 3-(4-diethylamino-2-hydroxyphenyl)-3-(5-anilino-4-methyl-2-methoxyphenyl)phthalide 3 g, a 20% poly(vinyl alc.) solution 20 mL, stearamide 6, NaO2CCCl3 2 g, and H2O 30 mL were mixed well, and the resultant dispersion was mixed with another dispersion consisting of Bisphenol A 12 g, a 10% poly(vinyl alc.) solution 10, and H2O 40 mL to give a heat-sensitive coating composition. The coating composition was coated on a paper support and used in a thermal printer to give a copy with good image optical d. and good storage stability.

IT 68882-50-8

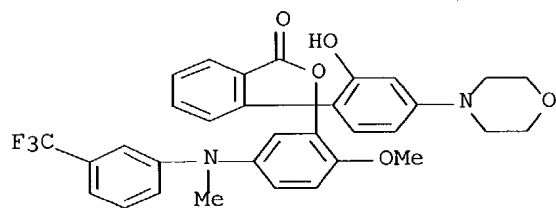
RL: USES (Uses)

(coating compns. containing, for thermal recording paper)

RN 68882-50-8 CAPLUS

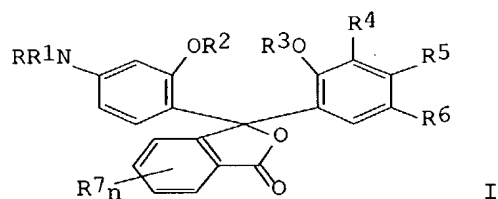
CN 1(3H)-Isobenzofuranone, 3-[2-hydroxy-4-(4-morpholinyl)phenyl]-3-[2-methoxy-

5-[methyl[3-(trifluoromethyl)phenyl]amino]phenyl)- (9CI) (CA INDEX
NAME)



L7 ANSWER 43 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1979:95425 CAPLUS Full-text
 DN 90:95425
 TI Thermal recording materials
 IN Iwata, Susumu; Kubo, Keiji; Miyajima, Shigeru; Tamura, Hiroshi
 PA Ricoh Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 53099951	A2	19780831	JP 1977-14140	19770214
	JP 57052917	B4	19821110		
PRAI	JP 1977-14140		19770214		
GI					



AB Thermal recording materials contain an acidic substance, an alkali metal salt, and a lactone of the general formula I (R, R1 = H, lower alkyl, aralkyl, Ph, substituted aralkyl, substituted Ph, CH2CH2CN, CH2CH2OH, 2-haloethyl, or RR1 in combination may complete a pyrrolidino, piperidino, or morpholino group; R2, R3 = H, lower alkyl, aralkyl, acyl, Ph, and ≥ 1 of R2 and R3 is H; R4, R5, R6 = H, lower alkyl, lower alkoxy, halogen, halomethyl, NO2, NH2, substituted amino; R7 = H, lower alkyl, lower alkoxy, halogen; n = 0-4). The thermal recording materials yield clear images without blemishes. Thus, a dispersion consisting of 3-(4'-diethylamino-2'-hydroxyphenyl)-3-(5'-anilino-4'-methyl-2'-methoxyphenyl)phthalide 3, Na2CO3 2 g, a 10% poly(vinyl alc.) solution 20 and H2O 30 mL was mixed with another dispersion consisting of Bisphenol A 12 g, a 10% poly(vinyl alc.) solution 10, and H2O 40 mL, and the mixture was coated on a paper support to give a thermal recording paper. The paper yielded clear black images when printed with a thermal printer.

IT 68882-50-8

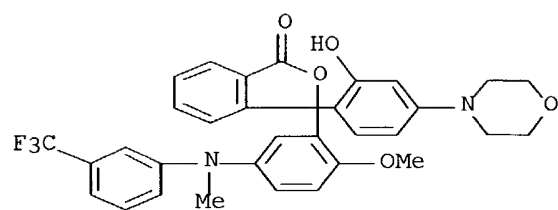
RL: USES (Uses)

(heat-sensitive color-forming compns. containing organic acid, alkali metal salt and, for thermal recording papers)

RN 68882-50-8 CAPLUS

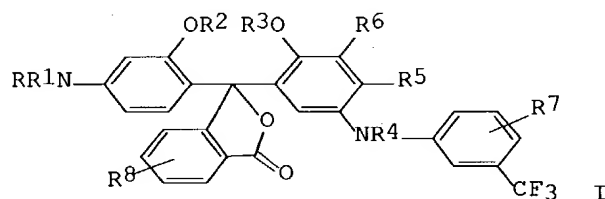
CN 1(3H)-Isobenzofuranone, 3-[2-hydroxy-4-(4-morpholinyl)phenyl]-3-[2-methoxy-5-[methyl[3-(trifluoromethyl)phenyl]amino]phenyl]- (9CI) (CA INDEX

NAME)



L7 ANSWER 44 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1979:64427 CAPLUS Full-text
 DN 90:64427
 TI Heat-sensitive imaging materials
 IN Iwata, Susumu; Kubo, Keiji; Tamura, Hiroshi; Miyajima, Shigeru
 PA Ricoh Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 53065739	A2	19780612	JP 1976-140174	19761124
PRAI	JP 1976-140174		19761124		
GI					



AB Heat-sensitive imaging materials are described that contain a lactone of the general formula I [R, R1 = H, lower alkyl, aralkyl, Ph, CH2CH2CN, CH2CH2OH, β -haloethyl, or R,R1 in combination may form (CH2)4, (CH2)5, (CH2)20(CH2)2; R2, R3 = H, lower alkyl, amyl, Ph, and ≥ 1 of R2, R3 is H; R4 = H, aralkyl, lower alkyl; R5, R6 = H, lower alkyl, lower alkoxy, halogen, NO2, NH2; R7, R8 = H, lower alkyl, lower alkoxy, halogen; and n, m ≤ 4] as the color former. Thus, 3-(4'-diethylamino-2'-hydroxyphenyl)-3-(5'-N-methyl-m-trifluoromethylanilino-2'-ethoxyphenyl)phthalide was dispersed in an aqueous poly(vinyl alc.) solution, and Bisphenol A was then dispersed in another poly(vinyl alc.) solution, the 2 dispersions were mixed, and the mixture was coated on a paper support to give a heat-sensitive imaging paper which formed black images with high optical d. and good lightfastness, when used in a thermal printer.

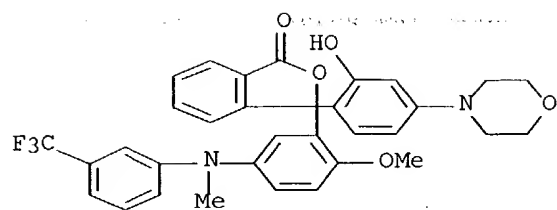
IT 68882-50-8

RL: USES (Uses)

(color-former compns. containing Bisphenol A and, for heat-sensitive copying papers)

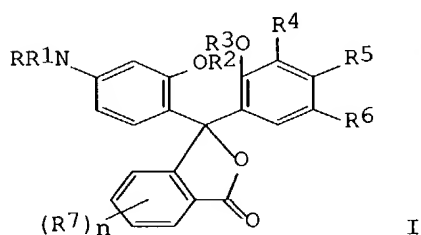
RN 68882-50-8 CAPLUS

CN 1(3H)-Isobenzofuranone, 3-[2-hydroxy-4-(4-morpholinyl)phenyl]-3-[2-methoxy-5-[methyl[3-(trifluoromethyl)phenyl]amino]phenyl]- (9CI) (CA INDEX NAME)



L7 ANSWER 45 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1979:46582 CAPLUS Full-text
 DN 90:46582
 TI Thermal recording materials
 IN Iwata, Susumu; Kubo, Keiji; Tamura, Hiroshi; Miyajima, Shigeru
 PA Ricoh Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 53082421	A2	19780720	JP 1976-159144	19761228
	JP 57052916	B4	19821110		
PRAI	JP 1976-159144		19761228		
GI					



AB Thermal recording materials are described which contain a lactone compound I (R, R1 = H, lower alkyl, aralkyl, Ph, cyanoethyl, β -hydroxyethyl, β -haloethyl, or RR1 together form $-(CH_2)_4-$, $-(CH_2)_5-$, $-CH_2CH_2OCH_2CH_2-$; R2, R3 = H, lower alkyl, aralkyl, amyl, H where ≥ 1 of R2 and R3 is H; R4, R5, R6 = H, lower alkyl, lower alkoxy, halogen, halomethyl, NO2, amino; R7 = H, lower alkyl, lower alkoxy, halogen; n = 0-4), an acidic substance, and a substance which forms an alkaline substance upon heating. Thus, 3-(4'-diethylamino-2'-hydroxyphenyl)-3-[5'-N-methyl(3''-trifluoromethylphenyl)amino-2'-ethoxyphenyl]phthalide 1, NaO2CCCl3 1, a 10% poly(vinyl alc.) solution 15, and H2O 35 g were mixed well, and the resultant dispersion was mixed with another dispersion composed of 4,4'-isopropylidenediphenol 4, 10% poly(vinyl alc.) solution 15, and H2O 35 g, and the mixture was coated on a paper support to give thermog. recording paper, which yielded a high quality copy when used in a thermal printer.

IT 68882-50-8

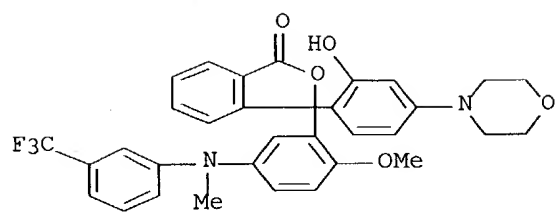
RL: USES (Uses)

(thermog. recording heat-sensitive composition containing)

RN 68882-50-8 CAPLUS

CN 1(3H)-Isobenzofuranone, 3-[2-hydroxy-4-(4-morpholinyl)phenyl]-3-[2-methoxy-

5-[methyl[3-(trifluoromethyl)phenyl]amino]phenyl]- (9CI) (CA INDEX NAME)



L7 ANSWER 46 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1979:6114 CAPLUS Full-text

DN 90:6114

TI Phthalide derivatives

IN Kawai, Hajime; Tsunemitsu, Katsuhiko

PA Yamada Chemical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

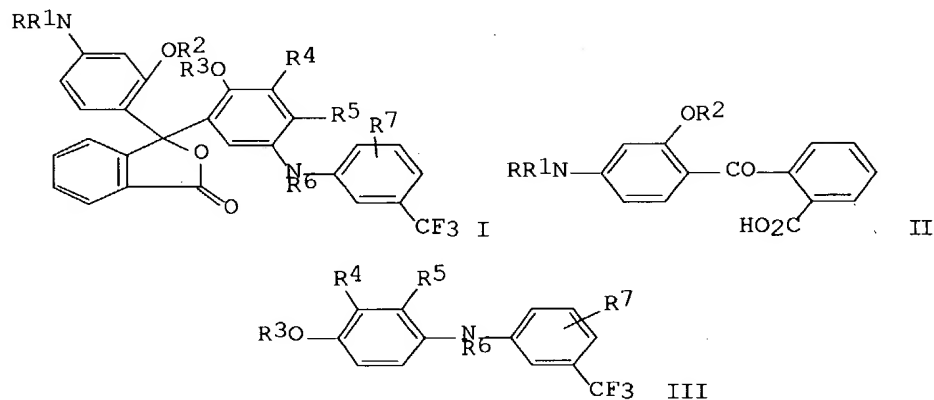
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 53063436	A2	19780606	JP 1976-138099	19761116
	JP 59052672	B4	19841220		
PRAI	JP 1976-138099		19761116		
GI					



AB Phthalides (I; R, R1 = H, alkyl, aryl, NRR1 = heterocycle; R2 = H, alkyl, R3 = H, alkyl, PhCH2; R4, R5 = H, Me, Cl; R6 = H, Me; R7 = H, Cl) were prepared by condensation of m-HOC6H4NRR1 with phthalic anhydride to give benzopyrones (II) followed by condensation of II with diarylamines (III). I were chromophores. Thus, 31.3 g II (R = R1 = Et, R2 = H) and 26.7 g III (R3 = Me, R4-7 = H) in concentrated H2SO4 was stirred 48 h at 10° to give 50% I (R = R1 = Et, R2 = R4-7 = H, R3 = Me). Similarly prepared were 31 addnl. I.

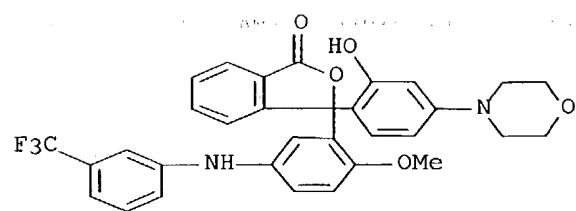
IT 68535-00-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 68535-00-2 CAPLUS

CN 1(3H)-Isobenzofuranone, 3-[2-hydroxy-4-(4-morpholinyl)phenyl]-3-[2-methoxy-

5-[[3-(trifluoromethyl)phenyl]amino]phenyl]- (9CI) (CA INDEX NAME)



L7 ANSWER 47 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1976:91647 CAPLUS Full-text
 DN 84:91647
 TI Fluoran derivatives
 IN Yahagi, Masakichi; Toyama, Takafumi; Izaki, Tetsuo; Suzuki, Teruo
 PA Nisso Kako Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 14 pp. Division of Japan. Kokai 75 09,430.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 50082127	A2	19750703	JP 1974-95363	19740820
	JP 55049086	B4	19801210		
PRAI	JP 1974-95363		19740820		

GI For diagram(s), see printed CA Issue.

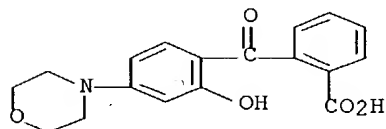
AB Fluoran derivs. I (R = pyrrolidino, piperidino, or morpholino; R1-R4 include at least 1 amino substituent) are prepared by reaction of 2,4-HORC6H3COC6H4CO2H-2 (II) with an aminophenol or aminonaphthol. I are useful as color-formers in inks for pressure- or heat-sensitive copying paper. For example, 8 g II (R = piperidino) [55165-06-5] was treated with 5.4 g 4,2-HOMeC6H3NHPh [17654-13-6] in 62 g concentrated H2SO4 at 0-10° for 24 hr, poured into ice water and filtered to give 6.2 g I (R = piperidino, R1 = R4 = H, R2 = Me, R3 = NHPh) [55773-64-3] as pale brown crystals, which turn violet in contact with clay and green in contact with phenolic resins. Four addnl. I were similarly prepared Also, 9.7 g p-H2NC6H4OH [123-30-8] was added to 23 g II (R = pyrrolidino) [49742-68-9] in 90 g concentrated H2SO4 at 100-10° and the product [55772-74-2] was alkylated with PhCH2Cl [100-44-7] in xylene at 120-30° to give 5.0 g white I [R = pyrrolidino, R1 = R2 = R4 = H, R3 = N(CH2Ph)2] [55772-83-3], which turned green in contact with clay or phenolic resin. Similar alkylation gave 4 addnl. I.

IT 55165-07-6

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with piperidinophenol)

RN 55165-07-6 CAPLUS

CN Benzoic acid, 2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



L7 ANSWER 48 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1975:499215 CAPLUS Full-text
 DN 83:99215
 TI Fluorane compounds and recording material containing them
 IN Hotta, Seiji; Ito, Yukiaki
 PA Sumitomo Chemical Co., Ltd., Japan
 SO Ger. Offen., 90 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2446313	A1	19750515	DE 1974-2446313	19740927
	JP 50064016	A2	19750530	JP 1973-112591	19731005
	JP 56046997	B4	19811106		
	US 4024157	A	19770517	US 1974-510916	19741001
	GB 1460210	A	19761231	GB 1974-42900	19741003
	FR 2246561	A1	19750502	FR 1974-33567	19741004
	CH 613403	A	19790928	CH 1974-13400	19741004
	US 4156682	A	19790529	US 1976-734668	19761021
PRAI	JP 1973-112591		19731005		
	US 1974-510916		19741001		

GI For diagram(s), see printed CA Issue.

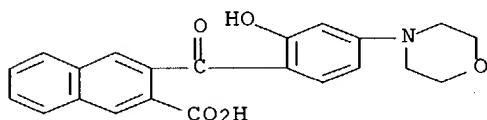
AB Color formers [I, R = H, Br; R1 = Et, Me; R2 = Et, Ph, cyclohexyl, p-MeC6H4; (R1R2N) = morpholino, piperidino; R3 = H; (R3R4) = benzo; R4 = H, Me; R5 = H, Ph, PhCH2, Me, cyclohexyl, substituted Ph; R6 = H, Ph, PhCH2] were prepared and used in pressure-sensitive copying paper giving light-fast dark red to black shades in contact with an acid substrate. Thus, a mixture of 4-HOC6H4NH2 [123-30-8], 2-[4-(diethylamino)-2-hydroxybenzoyl]-3-naphthalenecarboxylic acid [54117-20-3] in H2SO4 was condensed at 20-30° for 10 hr, the reaction mixture containing the anilide derivative poured into ice water, and neutralized with NaOH to give color former I (R = R3 = R4 = R5 = R6 = H, R1 = R2 = Et) [54117-21-4], dark brown in contact with an acid substrate.

IT 56279-07-3

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with toluidinophenol)

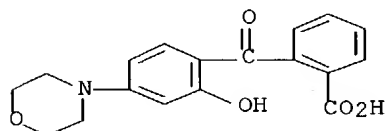
RN 56279-07-3 CAPLUS

CN 2-Naphthalenecarboxylic acid, 3-[2-hydroxy-4-(4-morpholinyl)benzoyl]-
 (9CI) (CA INDEX NAME)



L7 ANSWER 49 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1975:461717 CAPLUS Full-text
 DN 83:61717
 TI Fluoran derivatives
 IN Yahagi, Masakichi; Horiuchi, Shoichi; Toyama, Takahuma; Kashiwagi, Akio
 PA Shin Nisso Kako Co., Ltd.
 SO Ger. Offen., 86 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2424935	A1	19741219	DE 1974-2424935	19740522
	DE 2424935	C2	19880225		
	JP 50009430	A2	19750130	JP 1973-56278	19730522
	JP 51038245	B4	19761020		
	JP 50042913	A2	19750418	JP 1973-93260	19730822
	JP 51038246	B4	19761020		
	JP 50120636	A2	19750922	JP 1974-26876	19740308
	JP 54026929	B4	19790906		
	FR 2230632	A1	19741220	FR 1974-17660	19740521
	FR 2230632	B1	19790720		
	US 3959571	A	19760525	US 1974-472204	19740521
	IT 1011848	A	19770210	IT 1974-68598	19740521
	GB 1478596	A	19770706	GB 1974-22914	19740522
	US 4410708	A	19831018	US 1976-654732	19760203
	US 4677203	A	19870630	US 1983-504272	19830614
PRAI	JP 1973-56278		19730522		
	JP 1973-93260		19730822		
	JP 1974-26876		19740308		
	US 1974-472204		19740521		
	US 1976-654732		19760203		
GI	For diagram(s), see printed CA Issue.				
AB	Fluoran derivs. containing piperidino, pyrrolidino, cyclohexylamino, and morpholino residues in the 3-position were prepared which were less selfdeveloping than corresponding 3-Et2N derivs. and were used as color formers for heat-and pressure-sensitive copying paper. Thus, a mixture of 2-(2-hydroxy-4-piperidinobenzoyl)benzoic acid [55165-06-5] and PhNHC6H3(OH)Me-4,2 [17654-13-6] in H2SO4 was held at 0-10° for 24 hr to give fluoran derivative (I) [55773-64-3]. Similarly, 98 other fluoran derivs. were prepared and their color on acid substrates were given.				
IT	55165-07-6				
	RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with piperidinophenol)				
RN	55165-07-6 CAPLUS				
CN	Benzoic acid, 2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)				



L7 ANSWER 50 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1975:155802 CAPLUS Full-text

DN 82:155802

TI Benzophenone derivatives

IN Yahagi, Masakichi; Toyama, Takafumi; Igaki, Tetsuo

PA Nisso Chemical Industries, Ltd.

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 49133367	A2	19741221	JP 1973-47349	19730428
	JP 52010871	B4	19770326		
PRAI	JP 1973-47349		19730428		

GI For diagram(s), see printed CA Issue.

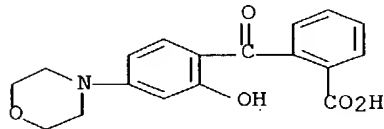
AB Benzophenone derivs. (I; R = piperidino, pyrrolidino, morpholino) were prepared by reacting m-RC₆H₄OH with phthalic anhydride (II). Thus, a mixture of 18 g m-pyrrolidinophenol and 15 g II in PhMe was stirred 4 hr at 110° to give 21 g I (R = pyrrolidino).

IT **55165-07-6P**

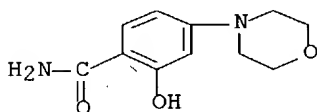
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 55165-07-6 CAPLUS

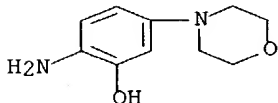
CN Benzoic acid, 2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



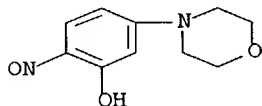
L7 ANSWER 51 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN .
 AN 1972:461917 CAPLUS Full-text
 DN 77:61917
 TI Aminobenzenes. VIII. Rearrangement of phenyl carbamates. Syntheses of
 2,4-dioxo-3,4-dihydro-2H-1,3-benzoxazines and salicylamides
 AU Effenberger, Franz; Niess, Rolf; Schick, Max
 CS Inst. Org. Chem., Univ. Stuttgart, Stuttgart, Fed. Rep. Ger.
 SO Chemische Berichte (1972), 105(6), 1926-42
 CODEN: CHBEAM; ISSN: 0009-2940
 DT Journal
 LA German
 OS CASREACT 77:61917
 GI For diagram(s), see printed CA Issue.
 AB Thermal rearrangement of N-aryl-substituted m-RC₆H₄O₂CNHR₁ (I, R =
 pyrrolidinyl, piperidino, or Me₂N; R₁ = Ph, Bz, or p-ClC₆H₄CO) obtained
 from m-RC₆H₄OH and R₁NCO gave 4,2-R(HO)C₆H₃-CONHR₁ (II), whereas N-
 alkoxy-substituted I gave 2,4-dioxo-3,4-dihydro-2H-1,3-benzoxazines
 (III). III were cleaved by dilute KOH with CO₂ evolution to give II (R₁
 = H). The mechanism of this Fries rearrangement-like reaction involving
 an intramol. path is discussed.
 IT **37893-38-2P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 37893-38-2 CAPLUS
 CN Benzamide, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



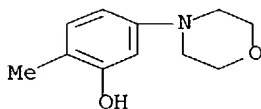
L7 ANSWER 52 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1970:403589 CAPLUS Full-text
 DN 73:3589
 TI Synthetic schistosomicides. XVI. 5-(Mono- and dialkylamino)-2-nitrosophenols, 2-amino-5-(dialkylamino)phenols, and related compounds
 AU Elslager, Edward F.; Worth, Donald F.
 CS Div. of Med. and Sci. Affairs, Parke Davis and Co., Ann Arbor, MI, USA
 SO Journal of Medicinal Chemistry (1970), 13(3), 370-6
 CODEN: JMCMAR; ISSN: 0022-2623
 DT Journal
 LA English
 OS CASREACT 73:3589
 AB Various 5-(mono- and dialkylamino)-2-nitrosophenols were prepared by nitrosation of the corresponding m-(mono- and dialkylamino)phenols, obtained by heating resorcinol with an excess of the appropriate amine at 200°, or by alkylation of m-aminophenol with an alkyl halide. 5-(Dimethylamino)-2-nitrosophenol, 5-(diethylamino)-2-nitrosophenol (I), 2-nitroso-5-(1-pyrrolidinyl)phenol, and 2-amino-5-(diethylamino)phenol, a potential metabolite of I, displayed strong schistosomicidal activity and effected a 70-100% reduction of adult *Schistosoma mansoni* in mice at daily doses of 177-568 mg/kg for 14 days. Structure-activity relationship are summarized, and information concerning potential metabolites and the possible mode of action of the nitrosophenols is discussed.
 IT **25912-15-6P 27292-55-3P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 25912-15-6 CAPLUS
 CN Phenol, 2-amino-5-(4-morpholinyl)- (9CI) (CA INDEX NAME)



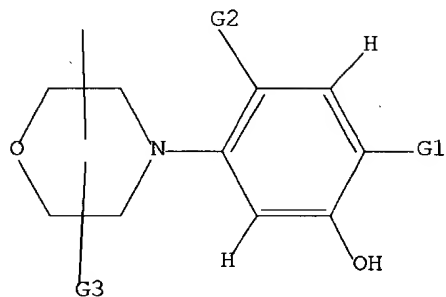
RN 27292-55-3 CAPLUS
 CN Phenol, 5-morpholino-2-nitroso- (8CI) (CA INDEX NAME)



L7 ANSWER 53 OF 53 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1960:91607 CAPLUS Full-text
 DN 54:91607
 OREF 54:17342e-i
 TI Rearrangement of o-benzoquinol acetates with amines
 AU Langer, F.; Zbiral, E.; Wessely, F.
 SO Monatshefte fuer Chemie (1959), 90, 623-33
 CODEN: MOCMB7; ISSN: 0026-9247
 DT Journal
 LA Unavailable
 OS CASREACT 54:91607
 AB o-Benzoquinol acetates (I) reacted readily with primary and secondary aliphatic and aromatic amines to form the corresponding N-substituted m-aminophenols (II). The syntheses were carried out with either the Li derivative of the amine (Method A) or with the free amine (Method B). To the amine in absolute dioxane was added PhLi in Et2O to form 2 mols. Li derivative of the amine/mol. I, the mixture cooled to -60°, I added, the mixture allowed to warm to -30 to -40° 5 min. (the reaction usually set in), held at room temperature 2 hrs., acidified with HOAc, diluted with water, extracted with Et2O, and distilled. The free base was treated with a 2-4 fold amount of I on the steam bath 0.5-4 hrs., water and 10% NaOH added simultaneously, the mixture filtered, the product precipitated with CO2, extracted with Et2O, distilled, and recrystd. from benzene-petr. ether. The following reactions were run (method, % yield of II, I, amine, and m.p. of II given). A, 1, 2-methyl-o-benzoquinol acetate (III), NH3, 159-61°; A, 44, III, Me2CHC2H4NH2, 90-1°; A, 52, III, Me(CH2)4NH2, 93-5°; A, 50, III, Me2CHCH2NH2, 93-4°; A, 10, III, EtO2CCH2NH2 (IV), 98-9°; A, 25, III, EtO2C(CH2)2NH2 (V), 59-61°; A, -, III, di-n-octylamine, - [20% o-cresol (VI) formed]; A, -, III, (Me2CHCH2)2NH, - (20% VI formed); A or B, -, III, ethylene imine, - (resinification); A (B), 95 (65), III, piperidine (VII), 162°; B, 67, III, morpholine, 152°; A (B), 97 (3), III, pyrrolidine (VIII), 160°; B, 83, III, PhNH2 (IX), 127°; B, 42, III, p-MeOC6H4NH2, 100°; B, 10, III, p-O2NC6H4NH2, 139°; B, 35, 2-H2NC5H5N, III, - [picrate m. 241-5° (decomposition)]; A, -, III, Ph2NH (X), - (20% VI formed); A, 20, III, Bu2NH, - (15% VI also formed); B, 60, III, Et2NH, - (5% VI also formed); A (B), 1(0), 2,4-dimethyl-o-benzoquinol acetate (XI), NH3, 158-60°; A(B), 50(25), XI, n-AmNH2, 61-3°; B, 50, XI, IV, 87-8°; B, 57, XI, V, 76-7°; B, 74, XI, VII, 128°; A(B), 84(84), XI, VIII, 145°; B, 83, XI, X, 95°; B, 83, 2-phenyl-o-benzoquinol acetate (XII), VII, 177°; B, 88, XII, IX, 107°. N-(3-Hydroxy-4-methylphenyl)piperidine was also prepared in 31.4% yield from 5 mmoles Br(CH2)5Br and 15 mmoles 4,3-Me(MeO)C6H3NH2 (XIII) by heating 30 min. at 100°, 3 hrs. at 120-5°, refluxing 3 hrs. with 20 ml. aqueous HBr (d. 1.38), drying, taking up in N NaOH, filtering, saturating with CO2, extracting with C6H6, subliming to remove XIII, and decolorizing with animal C from C6H6-alc.
 IT 103855-89-6, o-Cresol, 5-morpholino-
 (preparation of)
 RN 103855-89-6 CAPLUS
 CN o-Cresol, 5-morpholino- (6CI) (CA INDEX NAME)



=> d l1; d his
L1 HAS-NO ANSWERS
L1 STR



G1 Ak,Cb,Hy,O,N,CF3,COOH,CN,CHO,NO2
G2 H,S,N
G3 O,Cb,Ak,H

Structure attributes must be viewed using STN Express query preparation.

(FILE 'HOME' ENTERED AT 17:14:31 ON 26 OCT 2004)

FILE 'REGISTRY' ENTERED AT 17:14:38 ON 26 OCT 2004

L1 STRUCTURE UPLOADED
L2 5 S L1
L3 STRUCTURE UPLOADED
L4 39 S L3
L5 5 S L1
L6 86 S L1 FUL

FILE 'CAPLUS' ENTERED AT 17:17:00 ON 26 OCT 2004

L7 53 S L6

=> fil stnguide

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
253.16	410.05

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-37.10	-37.10

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